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ORIGINAL LECTURES.

FREQUENT AND PAINFUL URINATION.

A Clinical Lecture, delivered at the Long Island College Hospital.

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(Reported by Edward Develin, M.D.)

GENTLEMEN: To-day I desire to call your attention to that condition of frequent and painful urination arising from certain disturbances and anatomical lesions of the sexual organs.

CASE I.—Our first patient is thirty years of age, and has now been married eight months. Her health has always been fairly good until two months ago, when she began to suffer from frequent and painful urination. These annoying symptoms have continued ever since, and have also increased in severity. She states that in the morning and during the forenoon she is comparatively comfortable, and can retain her urine a reasonable length of time; but towards the afternoon the desire to urinate is frequent and urgent, and she has much pain in evacuating the bladder. These symptoms continue until night, and during the early part of the night she is compelled to rise several times and relieve her bladder; but after she has once fallen asleep she remains quiet until awaking in the morning at her usual time for rising.

Now the fact that she is able, while asleep, to retain her urine until the bladder is distended to an average capacity, is an indication that the trouble does not involve the entire bladder, but that it is limited to the urethra, and, perhaps, the neck of the bladder. If she had a general cystitis, the probabilities are that she would not be able to hold even an average quantity of water in the bladder at any time. We cannot, however, be sure as to the extent to which the bladder is involved without an examination of the urine, but it is fair to suppose, judging from her symptoms, that the trouble is limited to the urethra, and probably the neck of the bladder to a slight extent. It is a curious fact in her history that during the latter part of the night and during the forenoon she is comparatively comfortable, but that her symptoms become aggravated in the afternoon and continue during the early part of the night. This may be due to one of two causes.

First: It may be due to the fact that the irritation subsides after lying in bed for a time, and does not return until she has been about for several hours during the early part of the day. The fact of her being upon her feet and maintaining the erect position, naturally brings more pressure to bear upon the neck of the bladder, and would thus aggravate an already existing irritation, and give rise to frequent urination, which continues until she again seeks relief by assuming the recumbent position in bed for a time. This certainly is one of the causes for this frequent urination in the later part of the day.

Secondly: There is a cause which gives rise to the same peculiarity of clinical history, and that is *malarial poisoning*. A patient suffering from malaria quite frequently has irritability of the bladder, indicated by frequent and painful urination, these symptoms being always most marked in the afternoon and evening. In this case, however, there is no indication of malarial

trouble; so that the peculiarity of her history is no doubt due to the erect position maintained during the early part of the day.

Regarding the primary cause of her trouble, that is not quite so clear; there is no history of any gonorrheal inflammation which could have affected the urethra or bladder, as it sometimes does; neither has she any uterine or pelvic disease which would directly or indirectly affect her bladder. It is barely possible that it arises from the change in her social relations: having married late in life—some eight months ago—it is just possible that her family relations may have produced an irritation of the urethra and base of the bladder, which, when once established, is very liable to persist if not relieved by treatment. Having an opportunity of examining this patient's urethra and the neck of the bladder, the probability is that we shall find a hyperæmic condition and perhaps some tendency to ulceration of these parts, but of that we cannot speak positively, as the examination has not yet been made, nor shall we trouble her with such examination until we see if we can relieve her by treatment.

In the treatment of this case we will render the urine as bland and non-irritating as possible, by permitting her to drink freely of the alkaline mineral waters—Vichy for instance—and in case she cannot procure that, we will order the acetate of potash. At the same time I will give here a favorite prescription in these cases:

R.—Fl. Ex. Buchu, ʒij.

Tinct. Conium, ʒj.

Sig. ʒj half an hour before meals.

If this fail to give her relief, we will then employ injections of sulphate of zinc, half a grain to the ounce of water, with the addition of a drachm of the fluid extract of hydrastis canadensis. In using this local application we will employ a syringe with rather a large nozzle, which is to be introduced just within the meatus, then slowly and carefully inject the mixture so as to force it along the urethra into the bladder; being careful to have the bladder emptied previously. By adopting this plan we are sure of bringing the remedy in contact with the entire mucous membrane of the urethra. We will also request her to abstain from coition, as that may be the cause of her trouble.

CASE II.—I have here a very interesting case, brought to me by Dr. Stewart. This lady is forty-five years of age, unmarried. She gives us the following history: Up to six weeks ago she menstruated regularly every four weeks; since four weeks ago she has menstruated three times, she is therefore suffering from menorrhagia. She has great pain in the back and supra-pubic region, with frequent and painful urination; altogether, suffering extremely, she says. I am now making but very little pressure upon the abdomen, and yet she complains very much. Upon examination I find an extremely interesting pathological condition here. Now bear in mind the prominent symptoms: there are intense backache and pain in the supra-pubic region, with an abnormal condition of the menstruation, and a frequent desire to urinate. Dr. Stewart, in carefully examining the condition of the sexual organs, discovered conditions which did not altogether coincide with her history as given by herself. He found the uterus large and well developed, with an os externum

which looked as if it had seen service; the same also with the perineum. Upon being questioned very closely, or, as they say in law practice, "cross-examined," she admitted that she had had a child five years ago, and had been also operated on for amenorrhœa.

This gives us a clue as to the cause of the present condition of things which we have here. We find the uterus is large and the fundus is pointing towards the upper part of the symphysis pubis, the os looking towards the hollow of the sacrum; the body of the uterus is therefore pressing upon the bladder and crowding it downward—a condition which is sufficient to account for this frequent urination. The uterus is anteverted, and the prominent symptom is the functional disturbance of the bladder, due, no doubt, to the displacement. I here show you a specimen of her urine. We often have symptoms of cystitis without cystitis being established. In this case we have vesical tenesmus because of the pressure of the fundus uteri. A normal bladder will tolerate pressure for a time, but after a while it will incite this frequent urination; it is therefore a question whether or not we have cystitis here. You will observe in this urine that there is an abundant deposit of the phosphates; if this clear up upon the application of heat, and we find no products of inflammation under the microscope, we will simply say that this is a mechanical derangement of function.

There is, however, another unfortunate condition here, and that is, that while the uterus is anteverted, it remains there in spite of all our efforts to restore it. It is anteverted and fixed in this position because of a former peritonitis. If she has been subjected to an operation for the relief of amenorrhœa, she has been in the way of having pelvic cellulitis or peritonitis, or both, and the evidence is that she has had one or both.

We have here, then, an incurable anteversion; all that we can do is to relieve the symptoms; we cannot remove the cause of her pain, backache, and vesical tenesmus; we can only modify these, while hoping that she will live long enough to pass the menopause and be relieved by the final involution of the uterus. The plan of treatment will be to try and relieve her general condition. This urine shows her nervous system to be below par; when we have this brick-dust deposit, it is said to be a symptom that the waste of the tissues is in excess of the assimilation for their support. It is said of clergymen that the deposit of phosphates in the urine is greater upon Monday than any other day in the week, by reason of the using up of the nerve force on the preceding Sunday. It is possible that we may improve this woman's general health so that her system will be able to tolerate her local difficulty, and thus bear her suffering much better.

It is impossible to use a pessary in this case as the uterus is fixed; part of her vesical irritation may be due to the fact that her old peritonitis involved the peritoneum covering the bladder, so that now it is impossible for that organ fully to distend. This peritonitis has probably extended in front of the broad ligaments, forming adhesions, and thus holds the bladder in a splint so that it cannot extend; this may be another cause of her frequent urination. So that we have here two factors: the displaced uterus, and the thickening of the peritoneum upon the walls of the bladder, which prevent its distention. We can do little but apply the douche and paint the vaginal roof with iodine; we can also introduce a belladonna suppository if advisable. This, however, as I have told you, can only be palliative.

This case is an exceedingly important one, as those who are most prone to this condition are those who abuse the generative functions.

There is one thing more here which however hardly comes under my Chair. We find above the umbilicus a marked pulsation which may be an aneurism of the aorta, and which might possibly account for some of the abdominal pains.

CASE III.—This patient is twenty-six years of age, and she informs me that she first commenced to menstruate when she was eleven years of age. She has now been married seven months; her menstrual flow previous to marriage appeared every two weeks, but since that time she has menstruated once a month until within the last three months, when she has menstruated once in two weeks, as previous to her marriage. She now states that she has a frequent desire to urinate, and she is not relieved when she has passed water. She has vesical tenesmus, this is accompanied with some pain; her bowels are also constipated.

Now this is a very interesting history. First, abnormal menstruation, becoming normal after the change in her social relations, and then after a time again becoming abnormal. This is a marked violation of an essential law relating to menstruation, and the one which I dwell most upon in my didactic lectures, viz., that each individual should abide by the rule which she takes upon herself. If she start out in life to menstruate once in three weeks, that is normal for her, and she should continue to do so.

Now on examining this patient, I found the os pointing directly towards the introitus, and the fundus towards the pubes, the uterus being doubled up, both body and cervix being flexed forward, so that the two parts together make pressure upon the bladder, which is in all probability the explanation of her desire to urinate constantly; she informs me that she has to get out of bed several times during the night to urinate. The mechanical pressure in this case is disturbing the functions of the organ.

In this case, if we remove the cause we will in all probability remove the cystic irritation, and possibly correct the menstrual derangement. Sufficient to say just now that we will employ the usual treatment for anteversion of the uterus, and, if we can overcome that, all the symptoms will subside.

CASE IV.—This patient, a married lady, menstruated regularly until four years ago. She comes to us to-day complaining of some disturbance of the bladder. I think I shall be able to illustrate to you a prolapsus of the bladder, which gives rise to much annoyance in this case. Now, here, as you observe, we have both walls of the vagina coming down; here, also, we find from one-half to three-quarters of an inch of laceration of the perineum. The posterior vaginal wall, as you will observe, is not prolapsed as much as the anterior wall and the bladder.

Now, as I introduce the sound into the urethra, it should, of course, pass in an upward direction, but, as you can see by the arc the handle of the instrument describes, it passes backward, giving us the diagnostic sign of prolapsus of the bladder and upper portion of the urethra. These parts have been torn away from their original support and carried downward, the bladder and the urethra have parted company with the structures of the pelvis which support them; this, therefore, would result in partial incontinence of urine, owing to the undue pressure brought to bear upon the sphincter of the bladder.

Incontinence, however, is most marked when the prolapsus of the bladder is in the first degree; in complete prolapsus incontinence disappears, and gives place to difficulty in urinating. I have seen some cases where the bladder had to be restored to its position before it could be emptied; in such cases I have instructed the patient to urinate while lying down upon the face. I remember being called in a case of this

kind, in which the uterus was atrophied and the bladder rested upon the floor of the pelvis. She was unable to empty the bladder while in the erect position, but the moment the patient turned upon her face in the reclining position she could urinate with great comfort, and for the rest of her life I believe this patient will have to urinate in the knee-chest position. It is well to bear this point in mind.

In the case before us we must endeavor to do something to relieve her, as during the ensuing warm weather this prolapsus and partial incontinence of urine will be a source of great irritation and annoyance. I would, therefore, advise that she have perfect rest; tampon the vagina until this organ regains some tonicity, restore the perineum, and then introduce an anteversion pessary. Sometimes the restoration of the perineum and rest will suffice, but in other cases we fail with all the means which we have named, because the pessary does not come down far enough to keep the bladder in place. There is, however, a little instrument recently invented by Dr. Malcolm MacLane, of Harlem, which answers when the anteversion pessary fails. This consists of a little grooved instrument, which is passed under the arch of the pubes lying up against it, which is secured by a cord attached to it and passed around the abdomen, the only difficulty being that the two bars running up on each side of the meatus cause some irritation, but it really answers the best purpose in these cases when rest, restoration of the perineum, and all other pessaries fail.

A question here arises, viz.: If you support the bladder and urethra, and retain them in position, will the attachments ever become restored? To this I must answer that I do not know. I have seen a large number of these cases, and watched them with great interest, but I have not yet seen any case in which such an event took place. My experience would lead me to say that they are never entirely cured, although made quite comfortable by proper treatment.

CASE V.—This patient now before you is fifty-three years of age, has been married twenty-six years, and has three children. She is now suffering from prolapsus uteri, and also prolapsus of the bladder, as you all observe. This tumor projecting from the vulva is the uterus, bladder and vaginal walls. When I pass a sound up to the fundus, I find that the uterus is four and a quarter inches in length, showing it to be very much larger than it ought to be in a patient of this age. This which I now hold between my thumb and finger is a portion of the bladder. I need hardly add that we have here a well-defined prolapsus uteri in the third degree. We are sometimes in doubt as to the degree of prolapsus in some cases, but here we are fortunate enough in having it so clearly defined as to be unmistakable. Now, to prove to you that this is the bladder which I hold in my hand, I pass the sound into it, and in place of the instrument taking an upward direction it curves downwards, and those who are near by can see that I can put my finger upon the point of the sound within this sac in my hand, you can see it move my fingers. We have then complete prolapsus of the bladder as well as of the uterus. I will now carry the uterus up to its place in the pelvis, and in doing so you see that I press the cervix backward. If I did not do that, I should transform the prolapsus into a retroversion of the third degree. On making pressure I am very careful to carry the fundus upward. Sometimes it is impossible, as the uterus will double upon itself, the fundus falling backward; we then transform it into a retroflexion. In such cases it is then necessary to pass the sound into the uterus and guide it into position by this means.

In this case we have also an anatomical lesion of the perineum, and in addition to this we have also a func-

tional lesion, a relaxation of the muscles. When I make pressure backwards there is not much muscular resistance.

Now the point which I wish you to carry in your mind is the changes which occur in the other organs of the pelvis owing to this uterine displacement. In addition to the uterus becoming displaced, the bladder also comes down with the uterus; and in all these cases of displacement, if they have existed for any length of time, the vaginal walls become relaxed, which leads to or follows the abnormal position of the uterus.

Sometimes we have only one vaginal wall prolapsed; usually, however, both. In this case both of these are entirely out of the pelvis, as you see, but the posterior vaginal wall does not come down so far as the anterior. In managing a case of this kind, just do as you see me now, push the uterus up in position, keep the patient in the recumbent position, and use the vaginal tampon to retain it there. I have just such a case at the present time in my private practice. Before the uterus was restored to place, she spent most of her time in urinating. Now I have her lying in bed under the treatment I have just described, and she can retain her urine as long as anyone. When the relaxation has been overcome to some extent, and the parts have regained their tonicity, we will restore the perineum in this case so as to get as much normal support as possible, making a restoration of which at first appears to be more than is necessary to compensate for the tendency to prolapsus.

So we bring the vivifying process a little higher up into the vagina and bring together as much tissue as possible, making the perineal body run up into the vagina, so as to make a support for the bladder. But even then, in some cases, you will find that in time the bladder will gradually slip down, so that, perhaps, this lady will come back at the end of a year and say that our operation did not do her any good. We will have, however, gained much, having secured a good perineum upon which to rest a globe pessary. We will follow out precisely this treatment here, keeping the parts in position for a time, then by and by restore the perineum, and afterwards introduce the globe pessary, if need be.

CASE VI.—Our next case is also one of incontinence of urine; the cause, however, of this condition in this patient is entirely different from that of the preceding ones, and therefore must not be arranged under the same head. The patient, however, comes to us suffering from this incontinence, and I now present her to you as illustrating another cause of this difficulty. This little girl is twelve years of age. When she was three years old she had an attack of scarlet fever, and has never been well since; she has not accomplished much in the way of growth or development; she looks somewhat anæmic. During the night she has to get up six or seven times to pass her water, and, unless exceedingly tired, the desire always awakens her. During the day the passing of water is equally, or more, frequent; for this reason she has been unable to attend school. This is very interesting, as it illustrates a class of cases which you will meet quite frequently. When urinating there is always pain, and she informs me that, if she attempts to restrain herself, it increases the pain; but immediately upon evacuating the bladder there is complete relief for a time. For the last nine years this has been going on. It is, however, a rare thing as a rule in this difficulty for the patient to awaken at night, the urine being generally passed in bed. This is a most miserable condition for a child to be in, being obliged to get up to urinate many times every night, or else to sleep in a bed saturated with urine.

Acute cystitis often follows the eruptive fevers, and

sometimes in these cases it becomes chronic, as in this case, so that we should always be on our guard in the eruptive fevers and see to it if there is any cystitis following, otherwise the result will be the same as in this case. Now, whether the child has general cystitis or an inflammation of the neck of the bladder with urethritis remains to be seen. The way to make the diagnosis is repeatedly to examine the urine, selecting the last drachm or two which is passed, and if it contains pus and epithelium we may be tolerably sure that there is general cystitis. The order of the development of the pathological conditions in this case is as follows: first, scarlet fever, which gave rise to acute cystitis, or urethritis, which in place of ending in recovery, ran into the chronic or continuing variety.

ORIGINAL ARTICLES.

GLANDULAR HYPERPLASIA AT THE VAULT OF THE PHARYNX.

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In many individuals, chiefly adolescents, and according to my own experience most frequently females, imperfect nasal respiration with impaired enunciation will be found to be due to hyperplasia or exuberant overgrowth of the conglobate mass of glandular tissue normally situated at the vault of the pharynx directly behind the upper portion of the septum of the nose. The hypertrophied tissue blocks up to some extent the posterior outlets of the nares. It thus mechanically interferes with normal nasal respiration, and produces the peculiar intonation acquired when resonance is lost in the nasal passages. The intensity of these symptoms is proportionate to the amount of occlusion of the nares. Additional symptoms are usually present, similar to those attending a protracted cold in the head, but unaccompanied by discharges of mucus from the nostrils, unless catarrh of the nasal passages coexists with the condition under consideration.

Although this affection did not prominently attract professional notice until after rhinoscopy was introduced into medical practice, it had long before been recognized post-mortem, and been accounted for pathologically. Some exquisite preparations of this glandular tissue, in both normal and morbid conditions, prepared more than a hundred years ago by the celebrated William Hunter, are preserved in the anatomical section of the Hunterian Museum at Glasgow.

For recognition of this affection during life, the profession is chiefly indebted to Prof. Voltolini, of Breslau; for anatomical descriptions of the tissue and its relations to other structures, to Prof. Luschka, of Tübingen; and for its careful histological and clinical study to Dr. William Meyer, of Copenhagen.

Except in individuals with defect in the palate, the glandular tissue at the vault of the pharynx cannot be observed during life without the rhinoscopic mirror. Hence the comparatively late date of its recognition.

It consists of adenoid tissue, identical in structure with the tonsils, and the agminated glands of the intestine. Its similarity to the tonsil has caused it to be termed the *pharyngeal tonsil*. It is most usually described as the adenoid tissue of the vault of the pharynx, and its hyperplasia as adenoid vegetation.

The hyperplasia presents two different forms, between which and beyond which there is a variety of gradations. These two forms are, macroscopically, a uniform hypertrophy similar to ordinary hypertrophy of the tonsil, and a series of dendritic outgrowths in pendant clusters. The clusters of outgrowths are isolated in some instances, and in close apposition in others. They are quite pink at the base, and become much lighter in color at the apex. They are occasionally so abundant as quite to cover the vault of the pharynx, and occlude much of the calibre of the cavity. In occasional instances, too, they extend along the lateral walls of the pharynx. Their free surface is usually smooth, though sometimes villous. They are often so soft in consistence that they bleed on palpation, or when rubbed with a sponge or cotton-wad, or even when impinged upon by a stream from the syringe. Microscopically, the mucous membrane is seen to have participated in the hyperplasia, so that, in consequence, isolated fields, or small sections, often resemble papillomata. The main portion of the mass, however, consists of lymphoid, or immature connective-tissue cells. Bloodvessels are few, but blood-channels are seen at the periphery.

The tissues immediately surrounding the diseased structure, be it hypertrophic or fimbriated in variety, are usually in a state of chronic catarrhal inflammation. A condition of hypersecretion usually exists. In the purely hypertrophic variety the mucus often undergoes desiccation *in situ* with a series of scabs, which become detached at intervals of a few days; provoking a little bleeding at times, when the tissue is soft and succulent. From a similar cause some patients are troubled by blood in the mouth almost daily on awakening.

In the dendritic or fimbriated variety of the disease, the mucus is liable to drop from time to time, and thus provoke cough, often referred to disease of the larynx. Sometimes it descends the posterior wall from time to time in viscid, discolored strands or masses. When the hyperplasia extends as far as the pharyngeal extremity of the Eustachian tube, disorders of hearing, catarrhal or mechanical, are frequent. Peculiar headaches ensue in some instances, usually referred to the top of the cranium, but really proceeding from its base at the point where the tissue in question is located.

The affection is often easily diagnosed by the symptoms incidentally alluded to, and the diagnosis is placed beyond doubt by inspection rhinoscopically, and by palpation.

The affection requires surgical intervention when the masses obstruct nasal respiration, or are in a condition of hypersecretion. The plan pursued by me during a long series of years, consists mainly in excision in fragments by means of curved forceps

with cutting cup-shaped blades, passed behind the palate: instruments practically the same as those devised much more recently by a number of specialists abroad and at home. A properly guarded electrocautery is useful when the growths cannot be grasped by the forceps. Such cases have been very infrequent in my own experience. For this purpose I have used either an electrode guarded in front by soft or hard rubber, so as to avoid burning the palate; or, in more recent work, an electrode made to be pushed forward and retracted at will through an insulating canula.

Injections of a solution of bicarbonate of sodium will relieve the pain produced by the incandescent cautery, when that is severe.

A number of operations are required to get rid of these growths, in the manner recommended; but I consider the method far preferable to prolonged efforts to rid the pharynx at once. Serious reaction has followed attempts to do too much at a time. The manipulations should be performed under guidance of the rhinoscopic mirror when practicable; when immediate rhinoscopic supervision is impracticable, the manœuvres should be practised under guidance of a finger of the disengaged hand. Under all circumstances the parts should be examined rhinoscopically after each operation. Bleeding is slight after excision with forceps, much slighter than after the use of ring-knives or sharp spoons. I have no practical acquaintance with the removal of the growths with snares, cold or incandescent.

In children, it is often practicable to tear these growths away with the finger-nail; a practice preferable to the use of cutting or burning instruments, though more bloody than the use of forceps. It is unnecessary to cauterize the parts or inject astringents upon them after the use of the cutting instrument. It is far better to leave them covered by the blood-magma which coagulates upon them.

After a large portion of the mass has been removed, sufficient, say, to reëstablish free nasal respiration, there is no absolute necessity to continue the ablations; for the remaining shreds, injured in their nutriment, usually shrivel into harmless insignificance.

No recurrences of hyperplasia after treatment have occurred to my knowledge, in my own practice, although inquiries have been made concerning patients where growths were removed by forceps more than fourteen years ago.

There is a natural tendency to spontaneous absorption of the tissue under consideration, after the patient has reached, say the twenty-fifth year. In this respect the analogy is maintained with the behavior of the adenoid tissue in the tonsil and in the solitary follicles of the intestine. Instances of hyperplasia are rare after development to full maturity, unless in subjects affected for several or many years. It becomes a question, then, whether it is proper at all to operate in children and adolescents, seeing that the condition may subside spontaneously in early adult life. This question receives an affirmative response in view of the injury to general health, and the impairment of hearing and of

enunciation, apt to result from years of continuance of the infirmity.

Although impracticable in many instances to trace a connection between the affection discussed and scrofulosis, or any other diathesis, it has been my custom for years to employ antiscrofulous constitutional treatment with advantage. Two remedies, mainly, have been selected—the one for its specific influence upon glandular hyperplasia generally, and the other for its specific influence upon secreting mucous membranes. The one is the hydrated chloride of calcium in simple syrup, thirty or more grains daily in divided doses; and the other, the oleoresin of cubeb, ten to twenty-five drops, on sugar, immediately after meals.

SUDDEEN DEATH DURING OR SOON AFTER CONVALESCENCE FROM DIPHTHERIA.

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WHAT the experience of other physicians may be regarding sudden deaths during the progress of diphtheria I cannot venture to say, as I have not been able to collect many cases which bear directly upon the question. I shall briefly mention three fatal cases that occurred under my own observation, more for the purpose of eliciting from others a record of such experience as will throw some light upon this feature of the disease.

CASE I.—Frank W., a young man of twenty-one, was taken ill with an attack of diphtheria in August, 1882. He made a good recovery, with the exception of slight paralysis of the right arm. While sitting on a log of wood, near the front of the house, he quickly picked up a stone and threw it at a small bird, which was hopping along on the ground near him. He had scarcely projected the stone from his left hand when he fell over from his seat, and expired before he could be carried into the house.

At the post-mortem examination, the left side of the heart was found empty, while the right was distended with blood. This condition had no doubt been produced by a sudden paralysis of the organ. When Frank threw the stone, the heart had contracted with sufficient force to empty itself; but, ceasing to act, the right passively filled with blood which it could not expel. In such a condition as this, the effort at breathing—indeed, the deep-drawn sigh—would bring the blood to the chest from the jugulars, the subclavians, and the inferior vena cava, for the purpose of filling the right side of the heart. The pulmonary veins, lying in the cavity of the thorax, would not be similarly acted upon during inspiration. Should the death take place very suddenly, the left ventricle might be almost devoid of blood.

CASE II.—Charlie H., aged five, was taken down with diphtheria in April, 1883. To all appearance this case was doing well. His bowels moved, and his mother placed him upon the chamber. At this juncture, I visited the house. On entering the room, the little patient said, "I am weak, put me in bed." This was quietly and quickly performed;

but after some few minutes of restlessness he expired.

The post-mortem revealed the heart to be full of blood, the right side more so than the left.

CASE III.—Annie W., aged thirteen, an active young girl, was attended by another physician during her attack. She recovered sufficiently to be sitting in the parlor. While there, her little sister, who was also ill of the same disease, died. She became at once so much affected that she had to be carried up-stairs to bed. I was sent for, and on arrival found her in an extreme state of collapse. Fearing to try stimulants by the mouth, I gave them hypodermically; but she died in about one hour from my arrival. No post-mortem.

Now, what is the cause of these sudden deaths? In the first place, it cannot be due to the mere presence of some poison circulating in the blood, and thereby injuring the nerve-centres; for two of the above cases might be fairly regarded as having recovered from the disease. In the case of Charlie H., there might be some ground for supposing that the cause of the heart's failure was due to a poisoned state of the blood, as the child was then under the influence of the disease. In the next place, the theory of Edward Woakes, of London, could hardly explain the first and third cases I have just recorded. This theory was enunciated at the International Medical Congress, in London. It claims that sudden death is due to a vaso-motor paralysis of the nutrient vessels of the vagi, so that these nerves are gorged with blood, and the fibrillæ jugulated to such an extent that they are unable to conduct inhibitory impulses, and the heart speedily wears itself out, being exhausted by a succession of rapid beats. It seems very difficult to explain how this gorged and jugulated condition of the vagi could exist and cause death so suddenly as in the case of Frank W., who had convalesced so far as to be out of doors.

We know that strong emotions produce marked effects on the heart, and especially if the person is of an excitable turn. After a prostrating disease, such as diphtheria, where the tendency to produce nerve complications is so great, the sympathetic or motor cordis, the vagi, or inhibitorius cordis, and the ganglia in the substance of the heart are very much weakened. In such a condition, a slight impulse or emotion acts so powerfully through the mind on the heart, as to produce an amount of derangement in its action sufficient to cause sudden death. That there is much in the theory of Woakes which is deserving of attention, I do not deny; but I feel that it cannot explain such cases as the first and third, and that we are forced back to the opinion, that there is still something wrong in the nervous system during and after this disease which cannot be explained by any known change in them; call it functional, if you will.

I have already said that, in cases where sudden death occurs when the patient has recovered from the disease, I do not think this sad termination is due to the actual presence of poison circulating in the blood, and coming into contact with the nerve-centres; yet the sudden death could follow as a di-

rect result of the depressing influence this poison had upon them during the continuance of the disease. Though this poison no longer exists, yet the weakened state of the nerve-centres exists; and a strong emotion or a sudden effort proves too much. The effort or emotion is the extra straw that breaks the camel's back. The weakened nervous system, which can just carry on the great involuntary functions of circulation and respiration, while everything is quiet, suddenly fails when an extra task is imposed upon it, of either a physical or an emotional character. From two of my cases, I firmly believe that the condition is central, and not peripheral; but what that central condition really is remains for the future to reveal. I regard it as a depraved and weakened one. If I am asked why it should occur with diphtheria, I can no more answer the query than tell why the poison of typhoid fever causes the very circumscribed congestions which produce the rose-colored spots.

In the case of Charlie H., I made a careful microscopic examination of parts of the vagi; but with negative results. No evidence could be found of the existence of a hyperæmia, nor of plastic effusion, within the nerve-sheaths, as one would expect were the theory of Edward Woakes true, as this case died during the progress of the disease.

FIVE OVARIOTOMIES.

BY THEOPHILUS PARVIN, M.D.,

PROFESSOR OF OBSTETRICS AND GYNECOLOGY IN THE JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

THE following are the only ovariectomies I have performed during the present year. It will be observed that they all occurred within a period of less than six months.

CASE I.—The first case was that of Mrs. W., twenty-two years of age, who had been married between one and two years. She resided at Loo-gootee, Ind., and was under the care of Dr. S. H. Brittain, to whom I am indebted for the following history of the patient, and of the operation and after-treatment.

"Mrs. W. came under my care the last of January, 1883. She first noticed a lump in her left side about one year ago, it steadily grew since that time; absence of menstrual flow since October; she was emaciated, feeble, pulse 120, temperature 101°, abdomen so greatly distended that she could not lie down. My diagnosis was ascites and an ovarian tumor. For the purpose of making her more comfortable, though I believed she could live but a short time, I performed paracentesis abdominis, removing nearly two gallons of ascitic fluid. After this she could lie down, but otherwise there was no improvement in her condition until the fifth day; then her appetite and strength were increased, and she did very well for two weeks, when the peritoneal cavity began to fill again. On the first of March, assisted by Dr. Trueblood, I tapped again, but first directly passed the trocar into the ovarian tumor;

¹ In justice to Dr. B., I ought to state that in rewriting I have condensed somewhat this history.

only a few flakes of cheesy matter escaped, and this not until the cyst contents had been partially broken down by a probe passed through the canula. The canula was now withdrawn from the cyst, and one and a half gallons of fluid taken from the peritoneal cavity. Her improvement after this was so rapid, that I was encouraged to believe ovariectomy was advisable, and wrote to Dr. Parvin, requesting him to visit the patient for this purpose. He replied, directed the preparatory treatment, and in company with Dr. L. S. McMurtry, then of Louisville, now of Danville, Kentucky, came to see Mrs. W. on March 15th. After we had all carefully examined the patient, who was now very feeble, pulse 125, temperature 100°, and after the matter had been fairly presented to her and her friends, an immediate operation was decided upon.

"The patient was etherized by Dr. Trueblood, and an incision made from just below the umbilicus to two or three inches above the pubis; when the abdominal cavity was opened, about two gallons of fluid escaped. The tumor, adherent at few points, and these adhesions not extensive, was punctured with an ovariectomy trocar; but the contents of the first cyst opened as well as of others, for the growth was multilocular, were so thick that they could not pass through the canula; the instrument was therefore withdrawn, and the hand used to scoop out the half-solid material. After thus reducing the size of the tumor, it was readily withdrawn through the abdominal opening; the pedicle, the left broad ligament, was quite long, and a clamp was applied to it; it was then divided by Paquelin's thermo-cautery between the clamp and the tumor; a blunt needle threaded with a double ligature of fishing-silk was carried through the pedicle below the clamp, the silk firmly tied on each side, then the two halves united in a single ligature encircling the pedicle and also firmly tied, the ends being cut off short. After thoroughly sponging the abdominal cavity, removing some blood-clots and some of the cyst contents that had escaped into it, the clamp was removed and the stump of the pedicle dropped into the abdomen. Deep silk stitches, with intervening superficial horse-hair stitches, were used to close completely the abdominal incision, except at its inferior angle, where a drainage-tube was passed. Carbolized cotton and oiled silk were placed over the incision, absorbent cotton put over the abdomen, all secured by a firm flannel bandage. She was then put in bed, bottles of hot water placed about her limbs and body, the temperature of the room increased, and a hypodermatic injection of morphia given.

"*March 16.*—Pulse 133; temp. 101°; urine drawn by a catheter three times in twenty-four hours, about four ounces each time. Patient resting well. Diet, hot water, and occasionally a tablespoonful of rice water.

"*17th.*—Pulse 135; temp. 101½°; somewhat annoyed by flatus, but relieved by the introduction of a tube in the rectum.

"*18th.*—Pulse 130; temp. 102°; urine scanty; gave small doses of infusion of digitalis and acetate of potash. Milk added to the rice water diet.

"*20th.*—Pulse 110; temp. 100½°; secretion of urine is free, and it is passed voluntarily.

"*21st.*—Pulse 108; temp. 99¾°; no important change.

"*22d.*—Pulse 102; temp. 97°; brandy given, and an improved diet. A purulent discharge through the drainage-tube, and the evening temperature increased.

"*23d.*—Pulse 96; temp. 98¾°; removed the silk stitches, replacing them by strips of adhesive plaster.

"*24th.*—Pulse 94; temp. 98¾°; disposition to a movement of the bowels, which was assisted by a warm-water enema.

"Until the 29th but little change; pulse and temperature becoming normal; some diarrhoea, for which occasional doses of camphorated tincture of opium were given.

"*29th.*—Removed horse-hair stitches. Pus still discharging from the drainage-tube, and wound shows a disposition to reopen.

"*May 15.*—Patient has steadily improved; the drainage-tube was removed soon after previous date, the gap closing by granulation. She is now in good health, save occasional attacks of intermittent fever; before she came under my care she had been living in a very malarious part of Illinois."

I will merely add to Dr. Brittain's faithful narrative, that Mrs. W. menstruated first after the operation in June (the right ovary, examined after the removal of the tumor, was found healthy), and that she has been regular since. She is now, as Dr. Brittain informs me in a letter received last month, in good health.

CASE II.—The second case was that of Mrs. J. L., formerly of Brookville, and who was directed to me by my friend, Dr. George Berry, of that place. Mrs. L. was forty-two years old; married, had three children, the oldest thirteen, the youngest eight years old; since the birth of the last had one miscarriage; menstruation regular; five years ago first noticed a tumor in the right side, it has gradually increased until the abdominal circumference is thirty-nine inches. For some months past she has been losing flesh and strength; becomes fatigued with even moderate exertion; pulse generally from 90 to 100.

She entered St. Vincent's Hospital, Indianapolis, July 10th, taking a private room, and was operated on the next day, July 11th. I was assisted in the operation by Dr. Joseph Eastman, who has been a tried and ever-trusted assistant in sixteen of the ovariectomies I have done, by Drs. Maxwell, But-ton, Long, and my student Mr. H. S. Rooker, all of Indianapolis, and by Dr. Newcomer, of Tipton, Indiana.

The patient was etherized; an abdominal incision three inches long was made, and then increased one inch. The tumor, which was a monocyst, had no adhesion and, after its contents were evacuated, readily collapsed and was withdrawn; the pedicle was four inches in length, broad and thin, and a double ligature was passed through it, and tied as in the previous case, when the tumor was separated by the thermo-cautery, and the stump dropped in

the abdominal cavity. Weight of cyst and contents thirty pounds; the color of the fluid was that of pea-soup, and the consistence that of cream. The abdominal wound was closed by silk sutures, and iodoform freely sprinkled over it; a very thick layer of absorbent cotton was placed upon the abdomen, and a flannel bandage firmly applied. Very little shock was observed; considerable ether-*nausea* troubled the patient, for the relief of which occasional teaspoonfuls of hot water were given, as first advised by Dr. Keith. The third day the temperature was 102°, and the pulse 120; a somewhat troublesome diarrhoea came on the fifth day, and continued eleven days before yielding to dietetic and medicinal means. The stitches were removed on the tenth day, and on the eighteenth she left the hospital, being quite well, and has so remained.

CASE III.—On the 11th of July I performed a second ovariectomy. Miss H., thirty-six years of age, first consulted me the middle of May. Two years before this date she noticed an enlargement of the abdomen, but no defined tumor. The enlargement increased so that she seemed like a woman far advanced in pregnancy, and yet for some time after this she continued her work, that of a clerk in a dry-goods store. Finally her health became so impaired that she had to give up her place, indeed was confined to her bed much of the time. Upon examination I found a large tumor, apparently divided by a transverse constriction about the level of the umbilicus into two unequal parts; in the lower part fluctuation was plain, but the upper part was fixed, firm, resisting, and fluctuation was indistinct.

Several reasons led me to advise tapping before performing ovariectomy. In the first place, to confirm the diagnosis; next, I hoped by temporarily lessening the mass to give the patient comfort, improve her health and strength, so that she could better bear the final operation, for her condition was very bad; beside, believing that the upper part of the tumor was adherent, I had a hope that when the lower portion was emptied, gravity might put those adhesions somewhat upon the stretch, and thus one of the difficulties and dangers in operating would be lessened. Tapping was twice done by Dr. Eastman, once in my temporary absence from the city, and the other time when I was present; each time a bucketful of glue-like fluid was obtained from the lower mass, but the upper was unchanged in size, position, and solidity. The second time an effort was made to aspirate the upper portion of the tumor, but only a small quantity of ovarian fluid was obtained, and the operation was followed by some bleeding.

Under the use of a liberal milk-diet, quinine and iron, there seemed, sometimes, a slight improvement in the patient's health, but irregular attacks of chills, followed by high temperature, nausea, and vomiting, and subsequent loss of appetite destroyed the little gain. More than once when a day had been fixed for the operation a postponement was rendered necessary by these attacks.

Finally, however, as before stated, the operation was done on the 11th of July. Ether was given; an

abdominal incision of three, subsequently increased to ten, inches was made; the lower portion of the tumor was emptied by an ovariectomy trocar and canula, and a similar effort was made as to the upper part, which had remained almost solid and immovable; but it proved to be a very thick-walled cyst, from the inner wall of which sprang a large number of cysts, varying in size from that of a walnut to that of the largest orange; these were broken up, and their contents scooped out with the hand. Adhesions to the omentum, to the abdominal wall, and to the liver made the removal of the tumor tedious and difficult; nevertheless, this was finally accomplished, thanks especially to my friends Drs. Eastman and Taylor, who applied for me a dozen ligatures to bleeding parts. The pedicle was tied and secured in the same way as in the previous cases; so, too, as to the sutures of the abdominal incision: the iodoform and cotton dressing was used, and a drainage-tube. The shock was very great, and death occurred on the third day, reaction never having been complete. The tumor weighed seventy pounds.

This is the third ovariectomy which I have done when there were adhesions to the liver, and each patient died—indeed, this experience leads me to dread hepatic almost as much as pelvic adhesions. However, this was one of the delayed operations, which are so dangerous. If the patient had been operated on a year sooner than she was, the probability is that she would have recovered.

CASE IV.—This case is given so well by my friend Dr. Kemper that not a word further need be prefixed, not a word need be added:

Mrs. S. L. L., age thirty-two years, native of Ohio, married eight years, nullipara. In the early part of the year 1879, she first noticed abdominal enlargement. The growth was slow, but gradual, and, as months elapsed, the first supposition of pregnancy was, of course, abandoned. Finally, an impairment of the general health becoming perceptible, Dr. Kemper was consulted on the 19th of July, 1883. The tumor was well marked; lines from the umbilicus to the anterior superior spinous processes of ilia showed the left one inch longer. The tumor was readily perceptible by touch through the vaginal walls. No pain had been present, but a peculiar throbbing in the abdomen had annoyed the patient for some weeks past. The menses had been regular. A diagnosis of ovarian tumor was made, and the patient advised to consult Prof. Parvin, of Indianapolis, which she did on the 10th of August. The diagnosis was confirmed, and an operation advised.

On August 16th, at two o'clock P. M., in the city of Muncie, Ind., the operation was performed by Prof. Parvin, assisted by Dr. Eastman, of Indianapolis. The following gentlemen were present: Drs. Vinnedge, of La Fayette; Kemper, Winton, and Boyden, of Muncie; and Mr. Rooker, medical student, of Indianapolis. Ether was administered by Dr. Vinnedge.

An incision, three inches in length, was made at the usual site in the median line. No adhesions were present, and, after withdrawing the fluid, a

unilocular sac was readily removed. The pedicle, a moderate sized one, springing from the left ovary, was divided by the thermo-cautery, thoroughly ligatured, and returned into the abdominal cavity. After a thorough cleansing, the wound was closed with the aid of deep and superficial silk sutures, and covered with iodoform. All instruments used were immersed in carbolyzed water. The entire operation and dressing consumed but twenty-five minutes. Reaction was rapid. No nausea was developed.

No untoward symptoms were subsequently shown in the case. The incision healed by first intention. Menstruation appeared on the 21st, and continued three days. She made a rapid and satisfactory recovery.

CASE V.—Mrs. M. S., thirty-five years of age, married sixteen years; has had two children—the first thirteen months after marriage, the second six years after the first; consulted me in July last, at the suggestion of Dr. George Duzan, for a tumor of the left side, believed by him to be ovarian. The tumor was first noticed sixteen months before; it now distends the abdominal cavity, the circumference at the umbilicus being thirty-nine inches. The patient for the last two months has been losing flesh, and her strength is decidedly impaired. I advised an early operation. She delayed, however, until September, and probably would not have been willing to have it done then had it not been that I was about removing from Indianapolis to Philadelphia. The operation was done on September 4th, Drs. Duzan and Brown, of Zionsville, and Dr. Eastman and my student, Mr. Rooker, of Indianapolis, assisting me.

After the usual anaesthesia and the abdominal incision, a non-adherent tumor, consisting almost exclusively of a single cyst containing a bucketful of chocolate-colored fluid, was found, and which, after evacuating its contents, was, of course, readily removed. The pedicle, which was long, was ligated and divided as in the previous cases; the abdominal incision was closed by silk sutures, and the dressing of iodoform and absorbent cotton used.

Dr. Duzan had charge of the patient after the operation, and from his notes I make the following statements:

Sept. 5.—Pulse 80; temperature $98\frac{1}{2}^{\circ}$.

6th.—Pulse 100; temperature 100° .

7th.—Pulse 120; temperature 103° . Menstruation came on; there was some diarrhoea; gave quinine, opium, and tincture of veratrum viride.

8th.—Pulse 106; temperature $100\frac{1}{2}^{\circ}$. The diarrhoea continuing, injections of laudanum and tannin were successfully used. From and after the fifth day, the pulse and temperature were normal. On the twelfth day, the stitches were removed, and the wound was found perfectly united. About the 5th of October, there was some swelling of the left leg resembling *phlegmasia alba dolens*, but it soon yielded to rest, an anodyne, and sedative lotion, and bandaging. The patient is now quite well.

Dr. Duzan adds to his letter, which was received on the 27th of October: "I neglected stating that I gave Mrs. S. quinine from the day after the operation until convalescence was fairly established. I

never fail to give this medicine after surgical operations, continuing it until wounds are healed." Dr. Duzan's large experience and great sagacity as a practitioner entitle his opinion to respect.

PHILADELPHIA, November 2, 1883.

A RARE CASE OF LARGE CYSTIC TUMOR OF THE POSTERIOR NARES; REMOVAL; CURE.

BY GEORGE M. LEFFERTS, M.D.,

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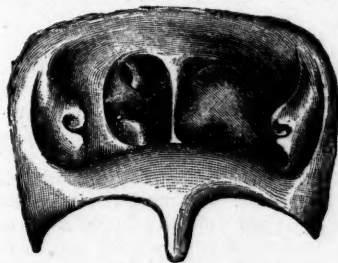
THE following case is, it appears to me, of sufficient interest, on account of its rarity, to warrant its being placed upon record:

I was recently consulted by a young lady who desired relief from the ordinary symptoms of a hypertrophic nasal catarrh, which she was supposed to have, and for which she had undergone various plans of treatment, both local and general, for a lengthened period of time.

The main symptom, and the one of which she mostly complained, was complete obstruction of the left nasal passage to the respiratory current. This condition had become progressively worse during the last year.

An examination of the anterior nares by means of the nasal speculum and reflected light, showed nothing but the common appearances—hyperæmia and slight thickening of the mucous membrane—incident to an ordinary chronic catarrhal process (simple chronic rhinitis). The rhinoscopic mirror, used in the examination of the posterior nares, a procedure not before attempted in her case, determined at once the cause, and, as I supposed, the nature of the obstruction to nasal respiration.

A large tumor, smooth, more or less rounded, and of a grayish color, resembling precisely an ordinary gelatinous polypus, for which I at once mistook it, fully occupied and completely closed the left posterior naris, projected outwards into the free space of the upper pharynx, and lay in close apposition to the pharyngeal orifice of the left Eustachian



tube. Its removal by means of the nasal polypus forceps was at once determined upon; this instrument in my judgment, affording the quickest and surest method of extirpation.

The first introduction of the forceps, their correct application to the growth being guided, by means of a direct inspection, through the posterior nares before their closure, succeeded in bringing away a large portion of the tumor.

My mistake now in the treatment of this particular patient, and I believe that it is a common one, and therefore mention it here, not hesitating to criticise it, even in my own case, as a bad practice, was in reapplying the forceps to the location of the supposed polypus before syringing away the blood and reinspecting the parts before reintroduction of the instrument. Had I done so, and I have made it a rule since, where it was the exception before, I should have recognized the true character of the growth earlier and spared the patient some unnecessary, even though slight, laceration of the parts in the neighborhood of the posterior extremity of the middle turbinated bone, at which point the tumor was subsequently found to have been attached. Failure to obtain any further portions of the tumor, led me to inspect more closely the portion that I had removed; to my surprise, it proved to be the entire sac of a large cystic growth, broken at only two points; one that of its small point of attachment, the other a small rent, where it had burst in the grasp of the forceps and discharged its contents. This discharge of a large amount of glairy mucus had not been noticed by me; had it been, it might have furnished a valuable clue to diagnosis.

The removal of the tumor at once relieved the patient of the most annoying of the symptoms. Others readily yielded to the treatment of the slight catarrhal condition.

Remarks.—Instances of true cystic tumor, originating in the mucous membrane of the nasal passages proper, are very rare, the invasion of the latter by mucous cysts having their point of primary development in the antrum of Highmore is the rule; but even these cases are infrequent.

I am familiar with but one case in literature similar to that which I here report; it concerned a patient of Dr. George Johnson. The growth was located in the right posterior naris, and, curiously enough, was attached to the posterior extremity of the middle turbinated bone, as in my case. The details will be found in the *British Medical Journal*, May, 1874. One or two writers upon diseases of the nose mention the possibility of the occurrence of such tumors, but fail to report specific examples. Watson (*Diseases of the Nose*, 1875), while giving many interesting instances of cystic tumor of the antrum, says that he can find but one recorded of cyst of the nasal passage (the case of Johnson, before alluded to), and believes that they are very seldom met with.

The interesting question of differential diagnosis suggests itself here. I cannot conceive that there would be any great difficulty in differentiating the primary location of a growth of this character—viz., whether, in the antrum, thence extending to the nasal passage, or in the latter itself. The points upon which a diagnosis must rest will suggest themselves. Between ordinary gelatinous polypus of the nasal passage and cystic tumor of the same locality the question will always be a difficult one to decide. I am aware of no distinctive differences as far as external appearances go. Fortunately, it is not of great importance. The treatment is similar—viz., extirpation. Prognosis as regards recur-

rence is, however, decidedly in favor of the latter form of growth.

HOSPITAL NOTES.

WILLS' EYE HOSPITAL, PHILADELPHIA.

THE USE OF JEQUIRITY IN EYE DISEASE.

Reported by CHARLES W. KOLLOCK, M.D., Resident Surgeon.

JEQUIRITY has been used for some time past at the Wills' Eye Hospital, in the treatment of obstinate cases of trachoma and corneal pannus, which all other known remedies have failed to improve. The number of cases in which it was used is not great, but is sufficient to demonstrate beyond a doubt its efficacy in those that have continually grown worse under other treatment, or were at a provoking stand-still.

A report of a few cases may prove interesting.

CASE I.—S. G. (service of Dr. Keyser), both eyes had been sore for eight years, but the left had finally been almost entirely cured by other means. The right eye, however, defied all treatment; the lids were thick, hypertrophied, slightly rough, and beefy in appearance. The cornea was entirely covered by a thick fleshy pannus, and at no point was the iris visible. She had light-perception only, and photophobia was intense. An infusion of jequirity was applied, the strength of which was eighteen grains to the ounce. In a few hours the lids began to swell, became stiff and very painful; lachrymation, not marked at first, soon increased, and became, after two or three applications, purulent. Along with the above conditions appeared a whitish-gray and filmy membrane which covered the mucous surfaces of both lids. This became more consistent and adherent as the inflammation increased. Adhesions formed between the pannus, grown puffy and swollen, and the palpebral conjunctiva which necessitated their being broken up daily by the probe. The cornea had in fact every appearance of sloughing, though it was not in the least injured. Six applications were made to the everted lids, when it was deemed advisable to discontinue its use on account of the intense inflammation. The patient was now in anything but a comfortable condition, on account of the constant pain and lachrymation, and could scarcely bear to have the lids touched for the purpose of cleansing. This state, however, was of short duration, for, left to itself, the inflammation quickly subsided, and the swelling, lachrymation, and pain disappeared. A boric acid collyrium (gr. x to 3j water) was now used several times a day. A small clear spot appeared in the centre of the ulcerating pannus, which increased in size daily, spreading rapidly towards the margins of the cornea. Through the clear space the patient saw distinctly, and each day the vision improved as the pannus disappeared. A month later the pannus was entirely absorbed, the lids were smooth and soft, the cornea was hazy from cicatrices and facets, the iris was visible at all points, and vision was improved from light-perception to counting fingers at three feet. In this condition the patient was discharged.

CASE II.—C. W. (service of Dr. Schell), right eye has been sore off and on for several years; lids in state of dry trachoma and cornea partially covered by pannus. On September 20th, at 8 A. M., first application of a nine grain solution of jequirity was made. At 1 P. M., a distinct film covered both lids, which was easily detached; there were slight pain, lachrymation, and swelling. A second and third application were made that day, and the fourth the next morning. The lids were now very chemotic, discharge muco-purulent, and membrane thicker and more adherent. Four ap-

plications were made in this case, the patient having, in the mean time, been compelled to take his bed on account of pain and general uneasiness. The inflammation was left to work its own cure. 22d: Lids considerably swollen, discharge continuous, pannus ulcerating, and cornea intact. By the 27th the discharge had ceased, the lids were smooth, and the cornea was daily becoming clearer. The patient was discharged on October 18th, wonderfully improved, though the vision was not as clear as might be expected. This is accounted for by the number of facets on the cornea caused by the pannus, which, though entirely absorbed, had left its marks firmly imprinted.

CASE III.—J. W. (service of Dr. Goodman), an old and obstinate case of granular lids with pannus, which resisted all remedies, and continually grew worse. The lids of both eyes were rough and flabby, the corneæ were covered by pannus, and photophobia was most distressing. Four applications were made to both eyes, with similar results to those above described. A boric acid collyrium was then used, and the inflammation quickly subsided, leaving the lids perceptibly smoother and corneæ clear. Both corneæ were found to be covered by excavations, which caused a great deal of irregular astigmatism. The left cornea became entirely free from pannus, but the right, not progressing so fast, the jequirity was again applied, with like results and improvements. A third time the infusion was used, and the result encouraging. Photophobia, so distressing before the use of the jequirity, is much relieved, and, though the patient is not yet cured, his present condition is so marked an improvement upon the former that there is reason for great encouragement.

CASE IV.—C. A. (service of Dr. Hall), chronic case of granular lids and pannus in both eyes. The granulations were prominent and hard. Jequirity was used but twice, on account of the intensity of the inflammation excited. The granulations underwent marked absorption and flattening, and pannus has disappeared.

CASE V.—E. C. (service of Dr. Keyser), heavy, flat granulations with fleshy pannus and hypertrophy of mucous membrane. Jequirity applied, with usual results. Ten days later: pannus absorbed, cornea a little hazy from cicatrices, and lids very much smoother. Patient discharged.

CASE VI.—C. G. (service of Dr. Schell), li's thick, stiff, and very rough; corneæ hazy from old cicatrices, but no pannus. Jequirity applied three times. Roughness almost disappeared, no discharge, but vision not much improved on account of the cicatrices of old ulcers which were not acted upon by jequirity. Patient discharged.

CASE VII.—R. I. (service of Dr. Goodman), lids of both eyes studded with large, prominent granulations, and corneæ streaked by numerous vessels. The granulations were first flattened by the use of the mitigated stick of nitrate of silver (thirty-three per cent.), and jequirity then applied in the usual manner, and with like results. Thirteen days after, the patient was discharged, to all appearances cured, excepting the cloudy condition of the corneæ, which can only be improved by time.

CASE VIII.—M. G. (service of Dr. Schell), trachomatous lids very rough, with corneal pannus in both eyes. Two applications of an eighteen grain infusion were made here, causing great pain, swelling, and lachrymation. After subsidence of inflammation, lids were found smooth, pannus entirely disappeared, but cornea covered by facets, which prevent distinct vision.

REMARKS.—The preparation of jequirity used, is a cold infusion prepared by Mr. L. E. Sayre, at Eighteenth and Market Streets. The strength of the infusions was, in all cases but two, nine grains to the ounce; in the two it was eighteen. The latter was found too

severe in its action, and for that reason its use was discontinued. These preparations are very prone to decomposition, and when in that condition give out a most offensive odor; but the power of causing inflammation is as active as when freshly prepared. To prevent this decomposition, which rendered its use very disagreeable both to patient and physician, it was decided to try the effect of boric acid in the preparations. Accordingly, Mr. Sayre added to each ounce of the infusion, four grains of the acid. The results surpassed our most sanguine hopes, for not only were all preparations kept pure and sweet, but the action was not in the least diminished.

The infusion is applied to the everted lids by means of a camel's-hair brush, or a swab of absorbent cotton—the latter is preferable on account of cleanliness.

It has been observed that pain is first noticed about four hours after the application, and simultaneously the lids begin to swell, and the filmy deposit appears on their mucous surfaces. Its action should be watched most carefully, for though no case of sloughing cornea has followed its use here, it might easily be a sequel through carelessness and inattention. Its use should be discontinued when the lids become chemotic, mucous surfaces well covered by the membrane and the discharge muco-purulent. Pain is in the majority of cases quite severe, but soon ceases after the applications are stopped. The discharge is very tenacious and rarely escapes beyond the lids.

Corneal opacities, *i. e.*, cicatrices of old ulcers, are not removed by jequirity. Its use upon acute granulations, etc., is not warranted; for, though it seemingly makes them no worse after its discontinuance, still they are not in the least improved. A marked improvement in vision has not been seen to follow its use unless the pannus was complete. This is accounted for by the condition of the cornea, which closely reminds one of a hammered button, with the light glistening from its numerous surfaces. This causes for the time being an irregular astigmatism, which of course prevents accurate vision for such objects as test-letters, and is the reason why the vision has not been recorded in the report of these cases.

It will be readily seen from the above report that only chronic diseases, such as trachoma, granular conditions, and pannus seem proper cases for the employment of jequirity. Its use in acute troubles has been thoroughly tested here, and found to be contra-indicated.

MEDICAL PROGRESS.

HELENOL.—Helenol is one of the active principles contained in the root of *Enula campane* or *Inula helenium*, the more common name of which is elecampane.

The decoction of elecampane has been recommended as an antidartous remedy by Knakstedt, and as antipsoric by Hufeland and Guibout. M. PAUL BLOQC has recently made some experiments as to the antifermentative properties of helenol. [The active principles of elecampane are alantol and helenin. Helenol is probably written here for helenin.] His experiments were based upon those of Korab, which showed that this substance possessed valuable antiseptic properties. Though the experiments of M. Bloqc are too few upon which to base general conclusions, yet his results have been very satisfactory in simple and recent traumas, in wounds of inflammatory origin, in callous and indolent ulcers, in dressing amputations, and in other cases requiring antiseptic dressings. This substance is a colorless liquid, of slightly aromatic odor. It is not irritating when used as a dressing, and its agreeable odor is a decided advantage in its favor.—*Progress Méd.*, Nov. 17, 1883.

SYPHILITIC NEURALGIA.—**PROF. SEELIGMUELLER** read a paper on this subject at the Fifty-sixth Versammlung Deutscher Naturforscher which recently met in Freiberg.

Neuralgia, he said, which are certainly related, etiologically, to constitutional syphilis, are nothing like so uncommon as would be supposed on reference to the literature of the subject. He does not refer, of course, to the cases of neuralgia following syphilitic periostitis, or to the osseous pains, but only to such cases in which the pains occur along the tracks of nerves. Such cases have been observed by Fournier in the course of the supraorbital and sciatic nerves. Seeligmüller has also observed them in the course of other nerves, as the intercostals, the brachial plexus, and the great occipital.

Lately he has observed, it seems, a very typical localization of syphilitic neuralgia in the head, and certainly along nerve tracts, which were formerly supposed to be cases of isolated neuralgic affections in unusual places. In these cases the pains were spontaneous, as though pressure had been made along a track two or three fingers wide, and which extended on both sides from the ear upward to the top of the head. He has further seen cases in which the pains were confined to a limited zone and to the course of sensitive nerves, as the auriculo-temporal and small occipital. There was no middle-ear disease in any of the cases.

The time at which the neuralgic affection comes on after syphilitic infection varies from two to fifteen years. The treatment is, of course, antisyphilitic.—*Deutsche med. Wochenschr.*, October 24, 1883.

CICATRICAL STENOSIS OF THE PYLORUS WITH DILATATION AND TETANUS.—**M. DUJARDIN-BEAUMETZ** reported this case at the meeting of the Société des Hôpitaux, on October 26th. The patient presented on his entrance into the hospital, the symptoms and physical signs of enormous dilatation of the stomach, with pyloric stenosis. The enormous size of the stomach was easily appreciated by the ordinary methods of physical diagnosis. Uncontrollable vomiting gave evidence of the state of the pyloric orifice. Washing out the stomach gave such relief that the patient was able to leave the hospital, but returned in a short time with an obstinate diarrhoea, produced by taking proprietary pills.

After entering the hospital the second time, he had tetanic seizures, such as have already been described by Kussmaul, as occurring in cases in which washing out the stomach is resorted to, and of which there have been many cases of late years. The tetanus, instead of being limited to the limbs, as is usually the case, became generalized, and the patient succumbed to asphyxia produced by spasmodic contraction of the diaphragm.

During life there had been diagnosed a cicatricial contraction of the pylorus, due to a round ulcer of the duodenum or pylorus. At the autopsy the stomach was found distended with water and invading the whole abdominal cavity. In the duodenum, just beyond the pyloric orifice, there was a stricture, beside the one involving the pylorus. The orifice was so small that a quill could scarcely be passed. M. Dujardin-Beaumetz thought that under these circumstances extirpation of the pylorus offered the best chance for the patient's life. This opinion was concurred in by MM. DÉBOVE and MILLARD.—*Gaz. Méd. de Paris*, November 3, 1883.

THE USE OF CORROSIVE SUBLIMATE AS A DISINFECTANT IN OBSTETRICS.—At the Fifty-sixth Deutschen Naturforscher Versammlung, in September, 1883, DR. KEHRER, of Heidelberg, read a paper on this subject.

Since April, 1882, he has used corrosive sublimate in two hundred and twenty-one labors. In four only was there an urticarious eruption, beginning on the thigh and extending over the whole body. This disappeared in three or four days. Attacks of stomatitis occurred in one lying-in woman and in three gynecological cases; the first having previously undergone a process of inunction, and two of the last had been taking mercury. Kehrer first used corrosive sublimate solutions of 1 to 2000; lately, of 1 to 1400. During labor he makes a vaginal irrigation before making the vaginal examination. As to the results of corrosive sublimate disinfection in the lying-in state, he states that two-thirds of the women remain entirely free of fever. Before the use of the sublimate two-thirds of them had febrile actions.

KUESTNER, in discussing this paper, was strongly in favor of the sublimate disinfection as a means of thorough disinfection. He has found that, after carbolic irrigation of the uterus, the cocci did not disappear, but their disappearance was very prompt after the sublimate irrigation.—*Centralbl. f. Gynäkol.*, Nov. 3, 1883.

HYSTERECTOMY IN PREGNANCY.—**PROF. KARL BRAUN VON FERNWALD** read a paper on this subject at a meeting of the k. k. Gesellsch. der Aerzte in Wien, on October 19th. He reported five cases in which he had performed Cæsarean section by Porro's method, on account of the absolute indications of very narrow rachitic and osteomalacic pelvis. At present the women were all doing well. One, a case of severe osteomalacia was so much improved as to be able to assist in the ward-work. His statistics of the Cæsarean section with hysterectomy and castration during six years, are twelve cases: Recovered, seven; partially favorable consequence in one case; and bad results in four cases. Of the twelve children, eleven are living. The general mortality as regards the women, is 33.3 per cent.

The extra-peritoneal method of treating the stump was employed in eleven cases, with bad results in three cases; mortality, 27.27 per cent. The three deaths were due to peritonitis within from two to four days. The stump was dropped in one case, with a fatal result.

Prof. Braun recommended the Porro operation with the extra-peritoneal treatment of the stump, and altogether rejects dropping the stump in these cases, as well as the return to the old operation with the new uterus suture of Sänger and Leopold. He finally recommended the following modifications for Cæsarean section with amputation of the uterus, castration, extra-peritoneal treatment of the stump.

1. Early operation at the end of pregnancy, before the beginning of labor, as the most proper time.
2. Antiseptic prophylaxis with 5 per cent. carbolic acid water before, and thymol water (1 to 1000) during the operation; anaesthesia with the alcohol-chloroform-ether mixture.
3. After the abdominal incision has been made the uterus should be drawn out, and an elastic loop thrown around the cervix, before the incision into the uterus is made.
4. A high elastic permanent ligature just above the cervix, and over that a strong Billroth's écraseur chain before the amputation of the uterus. Cauterization of the stump.
5. Closure of the abdominal wound with a metallic-plate and silver-wire suture, and with carbolized catgut. Fixing of the stump by means of a diagonally placed lance needle, and bringing together the peritoneal walls.
6. Cleaning and dusting of the wound with iodoform and the use of the Lister iodoform-gauze and wadding dressing.—*Wien. Med.-Presse*, October 28, 1883.

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SATURDAY, DECEMBER 15, 1883.

THE VAGINAL EXTIRPATION OF THE CANCEROUS UTERUS.

EXTIRPATION of the cancerous uterus is an operation which belonged almost exclusively to the first third of the century until within the last few years. Langenbeck, in 1818, seems to have been the first, or among the first, to remove successfully a prolapsed cancerous uterus; but he was less fortunate in his removal of the uterus by the abdominal method, laparo-hysterectomy, an operation proposed by Gutberlat in 1813, and performed in 1825. The vaginal method seems to have been much oftener preferred. The undisplaced uterus affected with cancer, was successfully removed by Sauter, of Constance, in February, 1822. Blundell, who operated in four cases, had his first and only successful case, in February, 1828. Récamier was the first to do the operation in France, in 1829. Among other operators were Roux, Siebold, Delpech, Lizars, and Dubled.

The operation was abandoned, and its great mortality very well explains the abandonment. Duparcque, writing in 1839, *Maladies de la Matrice*, observes that of forty cases in which this operation has been done, there was one partial success, and there were two complete successes; Marjolin stated in 1846, *Dictionnaire de Médecine*, that nine-tenths of the patients died within a few days, and the rest were only apparently cured, surviving but a year.

There are some striking contrasts between the operation as first and as now done. One of these is that to-day anæsthesia saves the patient from suffering, and greatly facilitates the operation; it required great heroism on the part of the operator,

and still greater on the part of the patient, in the day when anæsthetics were unknown. Again, most of the first operators were indifferent as to the loss of blood, no hæmostatic means being used: hence we read in the history of the old operations that one patient lost a pound and a half, another nearly two pounds of blood, collapse following the operation, which often proved fatal in twenty-four hours. Récamier indeed tied the lower third of each broad ligament, thus securing the uterine arteries, but this does not seem to have been the general practice. Another contrast is in the rapidity with which the operation was done; in many of the cases only thirty minutes or so were required, though Blundell was an hour doing his first operation, but now twice or thrice thirty minutes may be necessary.

Schroeder, at the last meeting of the British Medical Association, gave an account of his method of operating, that which is generally followed. Two volsella are applied to the uterine lips, and the uterus drawn down as far as possible; next a circular incision is made in the healthy tissue about the cervix, and the vaginal mucous membrane pushed back and upwards as far as possible; then the retro-uterine pouch is opened, and the uterus retroverted so as to bring its fundus into this opening; after this the uterus is separated from its anterior attachments, and then the broad ligaments are ligated; sometimes a single ligature answers for each, at others several ligatures are used, the ligaments being tied in several parts; the ligaments are then divided close to the uterus, and the organ removed. The stumps of the ligaments are drawn into the peritoneal wound, one on each side, and a T-shaped drainage-tube inserted. He observes that the chief danger is from the slipping of the ligatures. He also states that the technical part of the operation is not easy, and the operator ought to be accustomed to using a knife and to applying ligatures in the depth of the vagina. The sutures, for he closes the peritoneal wound, are removed on the fourteenth day.

Schroeder states that the operation is very difficult if the vagina is narrow, not easy in nulliparæ, often impossible in old women. These difficulties did not deter the earlier operators; they did not hesitate to enlarge by incisions the vaginal entrance. Lizars, for example, split the perineum so that the vagina and the rectum were converted into a common canal.

Olshausen guards against slipping of the ligature which is applied to the broad ligament, by using an elastic thread carried by means of a bent aneurism needle. Is it not possible that a Bellocq's canula might be used for placing the ligature?

Rydygier ties the uterine artery before dividing it.

Mueller, in the *Centralblatt für Gynäkologie*, 1882, suggested that the uterus should be first split vertically, dividing it into symmetrical halves, when the ligation of each broad ligament could be readily done, while the hemorrhage from the incision might be perfectly controlled by compression and torsion. So far as we know, this suggestion has not been tried.

Fritsch, in a recent paper in the same journal, very fully presents his method of operating: the salient points in this method we give our readers.

The first cutting is done at the side of the uterus; vessels that bleed are immediately tied, and the author states that he has sometimes applied twenty ligatures to one side of the uterus; the tissues are always to be cut, never torn; as soon as one side is separated and all hemorrhage stopped, the other side is to be similarly treated, only after incising the vagina let the incision be carried anteriorly and posteriorly so that the cervix is completely circumscribed, and into the sulcus thus formed place an elastic ligature which prevents all bleeding from the cancer; next the operator separates the uterus from the bladder; the uterus is now drawn downward, but not retroverted, and ligatures applied to the oviducts and round ligaments, sometimes three or four ligatures being used on each side, and so applied that the under ligature always includes a portion of the tissue embraced by the upper one; if the ovaries and oviducts are prolapsed they are removed, otherwise they are not disturbed. The uterus is now removed, and the opening immediately filled with a sponge the size of the fist; upon its removal the ligatures are drawn down to expose to view the cut surfaces, new ligatures are applied to bleeding points, the entire part covered with iodoform, the lower peritoneal cavity cleansed with iodoform gauze, and the vagina also thus cleansed; when there is hemorrhage from the connective tissue between the peritoneum and vagina, the two latter are stitched together; an iodoform tampon is placed in the vagina. The novelty of the method consists, according to Fritsch, in the lateral incisions, the elastic ligature of the cervix, and in drawing the uterus forward instead of retroverting it in its removal. So far as not turning the uterus backward, but drawing it forward is concerned, Fritsch states that Kraussold did it first, and therefore priority is due him.

We merely add that in the account of one of Récamier's cases of extirpation of the uterus, in January, 1830, anteversion, not retroversion, of the uterus was done in the operation, and that Gendrin, in the *Journal Générale de Médecine*, October, 1829, expressly advises that the operation be begun at the sides of the uterus so as to reach the broad ligaments, and thus be able to control the hemorrhage.

JEQUIRITY.

WE have already called the attention of our readers to the remarkable properties of jequirity. The observations of MM. Cornil and Berlioz, which we have quoted, have been resumed, and new facts have been developed. Before speaking of the new points, it may be well to give an account of the knowledge already existing of the peculiar powers of this agent.

It has been proved that the active constituent of jequirity is a microbe—a minute organism—and that if freed by proper filtration from these bodies, the infusion no longer possesses the power to excite inflammation. This disease-producing microbe is derived from the atmosphere, as Sattler has demonstrated. The infusion is prepared by macerating one part of the finely pulverized seeds, in seven hundred and sixty parts of cold distilled water, which, after digesting twenty-four hours, is then filtered and placed in flasks, so closed as to prevent the admission of the germs of putrefaction. Thus prepared, the infusion will retain its activity for several weeks. The germs derived from the air find in the albuminous matter of the seeds the material suited to their pullulation—in other words, the infusion of jequirity is a "culture fluid." A few drops placed in contact with the conjunctiva excite an active inflammation which may supplant an existing morbid process. It has been shown to cure pannus, trachoma, and other affections by this "substitutive inflammation" produced by the action of the microbe. An aerial disease-producing microbe has thus been proved to exist. The agency of aerial minute organisms in the causation of fermentative and other morbid changes, as maintained by Pasteur, is therefore confirmed.

The recent observations of MM. Cornil and Berlioz add new facts equally convincing of the substantial accuracy of Pasteur's doctrines, and of the important generalizations based on them. By subcutaneous injection of the infusion of jequirity, in frogs, rabbits, and guinea pigs, they have produced phlegmons of the skin which were followed by suppuration and gangrene. They find that if the animal survive these lesions, a second and greatly stronger injection produces no result, and, hence, they conclude that the first operation has the effect of a vaccination. They further ascertained that by injecting into the pleural or peritoneal cavity of a rabbit, even the fourth of a drop of the infusion, peritonitis or pleuritis followed, and the microbes were diffused throughout the circulation. The injection of this small quantity into any part of a frog, was followed by general septic infection, millions of the microbes being produced, and they were found in all organs and tissues, except the

cornea. A drop of the blood of such an infected frog caused in another frog the same septic infection and the same generalization of the microbe. If, instead of injecting the infusion, the grains of jequirity are mixed in and taken with the food, systemic infection does not occur. The elimination of the microbe from the system takes place by the kidneys and the intestinal mucous membrane.

THE PRESENCE OF BACILLI IN SURGICAL AFFECTIONS OF TUBERCULAR OR SCROFULOUS ORIGIN.

DURING the current year, as we learn from the *Fortschritte der Medicin*, Nos. 9 and 17, the *Journal de l'Anatomie*, No. 4, and the *Revue de Chirurgie*, No. 11, SCHUCHARDT and KRAUSE, SCHLEGTENDAL, CORNIL and BABES, and BOUILLY have made numerous researches which demonstrate the presence of the bacillus tuberculosis in certain affections that were manifestly tubercular, or were suspected to be of that nature. Of the lesions, the most frequent were cold abscesses, strumous synovitis, and tubercle of the bones, lymphatic glands, and the skin. The cases examined included also at least two of fungous synovitis of the sheaths of the tendons, and one each of tubercle of a muscle, of the tongue, of the epididymis, of the testicle, and of the female genital organs.

In all of the minute examinations, with the exception of those of Schlegtendal, bacilli were discovered; but in the majority they were so few and so difficult of detection that as many as three in the interior or vicinity of a giant cell were quite uncommon. In the case, indeed, of a cold abscess of the thigh, at least twenty sections of the limiting membrane were required to discover two of the organisms, and in only one example out of the forty recorded by Schuchardt and Krause were ten met with on the first section.

From their rarity and the difficulty of their detection, erroneous conclusions may be drawn as to the true nature of the lesions. More than this, their number does not correspond with the gravity of the affection. This point is well illustrated by one of the cases of Bouilly, in which, despite the fact of extensive tubercular deposits in various organs and tissues, only two bacilli were found in a presteral cold abscess. It should, however, be remarked that these organisms may be detected in the pyogenic membrane when their presence cannot be shown in the pus of a tubercular abscess. Their association with fungous synovitis proves, moreover, the tubercular nature of that affection, a fact which had been surmised by Trélat, Terrier, and other observers.

The investigations of Schlegtendal were confined entirely to opened and closed collections of pus in the bones, joints, glands, and soft tissues. Of the

100 cases, which included 520 preparations, 26 were attended with positive and 74 with negative results. Of 40 examples of unopened abscess, bacilli were found in 17, while of 60 examples of fistules and ulcers, they were present in only 9. In these statistics are included, however, some cases which certainly have nothing in common with tubercle, as, for example, 1 of abscess from caries of a tooth, and 3 of chronic ulcer of the leg. The examinations, moreover, appear to have been hastily conducted, since in at least one-half of the negative results only two preparations were inspected.

The latter objection becomes the more serious when it is remembered that a negative result is only declared after at least four examinations of the sputum of phthisis pulmonalis, in which bacilli are far more abundant than in pus. Had more frequent examinations been made, particularly in the cases in which there were also tubercular lesions of the lungs and other organs, it is highly probable that the positive results would have been materially increased in number.

The absence of bacilli from pus appears to support the view that tubercle alone does not cause suppuration, but that the pus found in the immediate vicinity of tubercular deposits is due to some other factor. Hence their presence is merely accidental, and denotes possibly the breaking down of tubercular tissue and its diffusion in the purulent collection.

SCHEDÉ'S OR LORETA'S OPERATION?

IN THE MEDICAL NEWS, of April 21, 1883, Dr. R. P. Harris gives an account of four cases of digital divulsion of the pylorus for cicatricial or carcinomatous stenosis, by Professor Loreta. The first case was one of cicatricial obstruction, following ulceration, in which, on September 14, 1882, the stomach was opened, after having been liberated from its attachments, and the stricture divulsed with the fingers. The gastric and abdominal wounds were then closed; the man made a rapid recovery, and experienced no trouble five months subsequently.

In looking over vol. vi., 1877, of the *Verhandlungen der deutschen Gesellschaft für Chirurgie*, we accidentally discovered that Schede, of Berlin, had anticipated Loreta by seven years. At p. 107, he describes a case of attempted suicide by swallowing sulphuric acid, which resulted in strictures of the cardiac extremity of the œsophagus and of the pylorus. He established a gastric fistule, with a view to gradually rendering both orifices permeable by bougies, and actually passed an instrument through the pylorus. The patient, however, expired in fifty-eight hours, and his object was defeated.

The only difference between the two operations

consists in the fact that Schede intended to dilate the stricture gradually, while Loreta practised rapid dilatation or divulsion. The credit of the feasibility of rendering a strictured pylorus permeable by opening the stomach, therefore, must be awarded to the German surgeon.

THE TREATMENT OF CICATRICAL STRICTURE OF THE OESOPHAGUS THROUGH A FISTULE OF THE STOMACH.

In the preceding article it has been shown that Schede conceived the idea of dilating cicatricial strictures of the pylorus and of the cardiac extremity of the gullet through an artificial opening in the stomach; and we find that at a subsequent meeting of German surgeons, Trendelenburg, in reporting the case of a boy, eight years of age, in which he had done gastrotomy for cicatricial stricture, stated that he had failed in his attempts to overcome the oesophageal obstruction through the new route.

In the *Deutsche medicinische Wochenschrift* of October 24, 1883, Von Bergmann records the case of a man who suffered from fibrous stricture of the cardiac extremity of the oesophagus, the result of drinking lye, in which the operation was successfully performed. The stomach was opened on the 29th of January, and a large fistule established. At the expiration of one month, attempts were made to reach the cardia with the fingers, at the same time that a probang was passed by the mouth, and, after several failures, a thick band of tissue could be distinctly felt between the probang and the finger. With the aid of an instrument constructed especially for the purpose, through the branches of which firm pressure was made from the oesophagus and from the stomach upon the band, the latter finally sloughed, and the opening thus made was plugged with a bit of compressed sponge, armed with a strong thread for the purpose of withdrawal. After its removal, a bougie, thirty millimetres, or one inch and one-fifth, in circumference, was passed into the stomach through the mouth. The bougie was used several times a day, and the sponge every other day until April 25, when the normal size of the gullet was reestablished. The dilatation was, however, continued until the middle of May, when a sound, twenty-five millimetres, or one inch, in diameter, could be passed with ease. The introduction of the instrument was now entrusted to the patient himself, and Von Bergmann closed the fistule on the 21st of May. The man continued the use of the large bougie daily, and when he was exhibited at the meeting, on the 10th of October, his condition was all that could be desired, a cure having practically resulted.

In a clinical note contained in the *Gazetta degli*

Ospitali, for November 14th, may be found a brief account of two cases of successful instrumental divulsion of cicatricial stricture of the lower third of the oesophagus, by Loreta. The stomach having been opened, the divulsor was passed through the cardia into the stricture, the latter was expanded to what was considered to be a sufficient extent to admit of the passage of food, and the incisions in the stomach and abdominal wall were closed with sutures. The subsequent condition of the subjects was most satisfactory.

The first of these operations was performed on the 24th of October, or nine months after that of Von Bergmann, and several years after the proposition of Schede and the actual attempt of Trendelenburg. Despite these facts, however, the credit of attacking a stricture of the oesophagus through the stomach is awarded to Loreta, and no notice whatever is taken of the operations of his German *confrères*.

NERVOUS ACCIDENTS CAUSED BY THE MATERIALS OF PHOTOGRAPHY.

DR. NAPIAS (*Gazette Médicale de Paris*, No. 40, 1883) has already given an account of an amblyopia and a form of professional cramp similar to writer's cramp, which happen to those engaged in the preparation of photographic plates. These observations have been confirmed by MM. Duchesne and Meichel, who have also furnished new facts. It may be of interest to the large number of those engaged in the business of photography, as well as to amateurs, many of whom are physicians, to learn the nature of the dangers to which they are exposed in the pursuit of this mode of bread-winning, or of pleasure-getting.

There may occur poisoning by the vapor of hydrocyanic acid, which is formed by the decomposition of cyanide of potassium by bichromate of potassium. Nervous phenomena may result from the breathing of an atmosphere in a dark room without oxygen, this necessary element being taken up by pyrogalllic acid when in contact with the alkali, ammonia. If to this loss of oxygen be added the vapor of ammonia, it is not surprising that such an atmosphere must, if long breathed, damage the blood, and cause a more or less profound anæmia with its attendant symptoms.

In the preparation of the plates by the gelatine bromide of silver process, every ray of light must be excluded, and the operator pursue his work by the aid of a feeble illumination afforded by the red-ray lantern. Besides the foul air thus caused, the narrow and gloomy apartment is filled with the vapor of ether. Unless great care in the ventilation is practised, the necessary detention in the dark-room proves very hurtful.

REVIEWS.

LA LONGÉVITÉ ET LES MOYENS DE L'ACQUÉRIR. Par JOSEPH G. RICHARDSON, Professeur d'Hygiène à l'Université de Pensylvanie, associé étranger de la Société d'hygiène Française, traduit de l'Anglais, avec l'autorisation de l'auteur, par P. Barrué. 8vo., pp. 180. Paris: Asselin et Cie, 1884.

LONG LIFE, AND HOW TO REACH IT. By DR. J. G. RICHARDSON, etc.

SOME time ago our British cousins showed their appreciation of what is known as the "Health Primer Series" by republishing it in England, with the names of the authors carefully omitted from each book, and every evidence that it was not the product of British intelligence suppressed. To this compliment has now been added the more acceptable one of a French translation and publication of Dr. Richardson's member of this series, entitled, "Long Life, and How to Reach It," with due credit to the author.

The views expressed in this book do not need to be dwelt upon here, for they were reviewed when they appeared in their original form. One point may, however, be referred to. This relates to a subject which just now is seasonable, namely, the question of protection against catching cold, as influenced by the clothing.

This is sensibly discussed by our author; but one thing which has struck the reviewer is not mentioned. This is that the custom of wearing thick undershirts in winter, while it keeps the body warm enough out of doors, keeps it much too warm when in the house. The consequence is that indoors, with the thermometer at a summer height, one is unable to suit the clothing to the conditions, without so extensive an act of undressing as no one can go through. The most proper plan would, in our opinion, be—and it accords with successful personal practice—to wear only moderately thick undershirts, and make the necessary addition in the shape of coats and overcoats on going out. In this way the body need not be overheated in the house, and it can be made warm enough in a moment for going out of doors. The great thing in this plan is to see that the forearm is not exposed by having the sleeves of the undergarment so short that chilling may take place at this place.

A SYSTEM OF HUMAN ANATOMY, INCLUDING ITS MEDICAL AND SURGICAL RELATIONS. By HARRISON ALLEN, M.D. Section V., Nervous System. 4to. pp. iv., 459 to 583. Philadelphia: Henry C. Lea's Son & Co., 1883.

WITH one more part Dr. Allen's fine work will be completed. The present one deals with the entire nervous system, and is very satisfactory. He records briefly but clearly the usual anatomical arrangements of the particular parts, next their variations, and then follows that which distinguishes this from all other anatomical text-books—practical remarks on the medical and surgical relations, the diseases and accidents peculiar to each part. Generally these remarks are very useful from the clinical point of view. They add greatly to the interest of the book, and aid the practitioner in his every-day work. Copious references to the original sources are given, thus doubling their value. We are somewhat surprised, however, to see no reference to the operations of nerve-stretching, especially in connection with the great sciatic nerve.

In the description of the brain, we are glad to see

the numerous drawings of sections at various levels. These aid one greatly in getting an exact idea of the internal and varying relations of any given part of the brain, and, in fact, are indispensable in the modern more exact descriptions of the brain both anatomically and pathologically.

The local student in Philadelphia can well supplement these plates of sections by a study of the splendid series of mounted sections by Schmidt, in the Mütter Museum of the Philadelphia College of Physicians.

The text is in general clear, brief, and sufficiently minute, and usually very accurate. In Fig. 92, p. 469, it is correctly stated that no central canal exists in the *filum terminale*, so that we were surprised to learn, on p. 465, that in this part of the cord it was T-shaped, or cordiform. In fact, it is a misfortune that this canal is called the canal of Stilling, or the central canal. Its best name, by far, is the "ventricle of the cord," for it is precisely analogous to the ventricles of the brain in its development.

Another slip we observe on p. 510, where the *falx cerebelli* is misprinted cerebral *falx*; and on p. 527 Vanzetti's name has the *z* omitted.

The plates in general are very good, though we observe some inaccuracies, chiefly in spelling. Thus, in Pl. 83, Fig. 5, "cervical" is misdrawn as "cercival." In Pl. 85, Fig. 1, the facial nerve is called the "fascial." In Pl. 86, Fig. 2, the flexors of the forearm are styled "flexors of foramen;" and in the description of Fig. 113, "i. c.," the internal capsule, is designated "i. e.," which is very apt to mislead. In Pl. 86, Fig. 1, at the bottom the median nerve is labelled as the ulnar artery by error. In the same figure, on a curiously shaded deltoid muscle, runs an unlabelled, and surely an impossible, nerve.

We have pointed out these few errors for future correction; but while they mar the complete accuracy of the work, they are but trifling blemishes, which but act as foils to the many and marked virtues and excellences of the entire book. None of us escape errors, but many do, unhappily, escape the merits of the present author. The work is a monument of careful, patient, long-continuing toil, well rewarded in its valuable results.

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Thursday, December 6, 1883.

THE PRESIDENT, FORDYCE BARKER, M.D., LL.D.,
IN THE CHAIR.

NOMINATION OF OFFICERS.

AFTER the reading of the minutes, the nomination of officers was made, as follows:

For *Vice-President*, Drs. Weir and H. D. Noyes.

Trustee, Drs. Purple and C. R. Agnew.

Treasurer, Drs. Cushman and E. R. Peaslee.

Treasurer of the Board of Trustees, Drs. J. H. Hinton, D. B. St. John Roosa, and F. A. Castle.

Committee on Admissions, Drs. James and Daniel Lewis.

Committee on Education, Drs. W. G. Wylie and John Shrady.

Committee on Ethics, Drs. C. D. Varley and F. V. White.

Committee on Library, Drs. A. Jacobi and H. D. Nicoll.

REPORTS.

After a report from the Committee on Admissions, a number of new Fellows, elected at the last meeting of

the Academy, were presented with diplomas and copies of the Constitution and By laws by the President.

Dr. Alexander Hunter, Secretary of the Section on Obstetrics, announced that at the last meeting of the Section Dr. W. M. Chamberlain had presented a paper entitled, "Notes on Displacements of the Uterus."

A COMMUNICATION FROM THE COUNCIL

was then read, recommending the appropriation of \$2000 for the use of the Library Committee during the ensuing year, and that a tax of three dollars, in addition to the regular dues, should be levied upon each Fellow for one year, in order to place the Academy on a sound financial basis. On motion of Dr. E. D. Hudson, the recommendations of the Council were adopted.

PROF. T. GAILLARD THOMAS then read a paper on

THE PREVENTION AND TREATMENT OF PUERPERAL SEPTICÆMIA.

At the present day, he said, when medical literature had assumed such enormous proportions, every scientific paper ought to be challenged for its *raison d'être*, and he did not hesitate to accept the challenge in regard to the essay which he was about to present to the Academy. He would freely confess, at the outset, that it contained nothing original, and that it was devoted to a subject which had received for a considerable time the careful attention of the progressive obstetricians of the world. Nevertheless, he ventured to hope that the lessons which he desired to inculcate might be productive of some good, and be of practical benefit to the profession. In support of the fact that the subject was not yet as well understood as it ought to be, he would mention two points: When at the meeting of the American Gynecological Association at Baltimore, in 1878, he advocated the use of intra-uterine injections in puerperal septicæmia, there was but one gentleman present who agreed with him: again, about one year ago he read the history of a case of this disease, treated in the manner presently to be described, at a meeting of the New York Obstetrical Society. This was published in some of the medical journals, and very soon afterwards he received at least half a dozen letters from practitioners in various parts of the country inquiring more particularly into the details of the method of treatment adopted. Finally, he said, he was, if not the first, among the very first to adopt the use of intra-uterine injections and external refrigeration in the treatment of puerperal septicæmia, and as a teacher and a consultant, who had had a very large experience in the matter, he felt entitled to speak.

In the last quarter of a century, he continued, more advance had been made in the study of the febrile conditions incident to the puerperal period than in all the preceding ages. It was true that long before this the communicability of puerperal disease was recognized, but it was reserved for the development of the germ theory to throw new light upon the subject. Ever since the time of Hippocrates, more than two thousand years ago, the profession had been striving to master the problem presented by such affections, and it was only now that it was beginning to find its way out of the darkness in which it had hitherto labored. We were now beginning to understand something of the nature of puerperal disease. Having given Hervieux's classification, he went on to describe the condition of the blood, with its marked excess of fibrin, and the exalted excitability of the nervous system in the parturient woman, the consequences which were likely to result from these factors; after which he spoke of the rapid physiological hypertrophy undergone by the uterus and other organs during gestation. He then described the appearances which would be presented by the genital organs of a woman dying forty-eight hours

after delivery. Among the conditions noted would be found two or three small rents in the cervix uteri, which would be swollen and oedematous; while in the vagina would probably be found several superficial ruptures of the mucous membrane. About the vulva, also, would be found lesions of continuity. The fourchette would be torn through and at least one or two small rents in the mucous membrane covering the ostium vaginae would be seen. From the fact that the ichorous and irritating fluid coming from the interior of the uterus was constantly flowing over these various lesions, we would naturally expect to find that infection and its dangerous consequences in the form of lymphangitis, phlebitis, peritonitis, or other inflammatory affection, would result. Yet these conditions existed in the case of every puerperal woman, and the ordinary result was complete and satisfactory recovery, unless some unusual event occurred to interrupt the physiological process going on. There were a number of recent wounds constantly bathed with a fluid made up of decaying animal tissue, and a bad result would naturally be anticipated; yet, according to the latest statistics of Tarnier, only one woman out of a hundred died in the lying-in hospitals. In fact, death was the very rare exception.

Occasionally, however, the ordinary course of progress towards recovery was interrupted, and striking, alarming, and often fatal phenomena suddenly presented themselves. On the morning of the third day after delivery, it might be that the physician would leave his patient in a perfectly natural condition, and on returning in the evening would find that she had had a chill of greater or less severity, that the lochia had ceased, that she was suffering from great general distress, and more or less pain in the head, back, and pelvic region; while the pulse had gone up to 130 or 140, and the temperature to 104°. All this would indicate that a dangerous poison had reached the genital tract, though the physician might flatter himself it was only an attack of malaria or milk-fever. Within a week we should find that parenchymatous metritis, lymphangitis, phlebitis, peritonitis, endocarditis, pneumonitis, pleuritis, or other form of septic inflammation had become fully developed, and the patient would probably die from continued high temperature and exhaustion.

In regard to the pathology of the disease, he believed that puerperal fever, in whatever form it might show itself, was puerperal septicæmia; the cause of the affection being the absorption of a poison by a solution of continuity in the genital tract. In 1871 Hervieux had said: "Here I stand. . . . I believe in the multiplicity of puerperal diseases. I believe in their origin from puerperal poison." This aphorism he accepted as expressing his own views. The special committee of the Berlin Obstetrical Society, composed of the most distinguished names, with Schröder at its head, which was appointed to investigate and report upon the subject of puerperal fever, had expressed the same tenets, and Dr. Thomas here quoted at length from the report of the committee. As to nomenclature, he thought the word "metria," recently proposed by the Dublin School of Obstetrics, was even more objectionable than the old term puerperal fever; while, on the other hand, puerperal septicæmia conveyed a clear and definite idea of the origin and nature of that affection. He thought that in spite of the fact that complications were of such frequent occurrence, the septic element was so paramount that the term should be adopted. Barnes had recommended the same, although he had adopted it with the proviso that it did not indicate a distinct and specific poison. He himself, however, believed that there was a specific poison.

What, then, was the nature of this poison? How

did it originate? What encouraged its life, and what crippled its activity? Unfortunately, in the present state of our knowledge, these questions could not be definitely answered; but the same was true in regard to the germ of scarlatina, variola, and many other zymotic diseases. Many German authorities had insisted on the agency of micrococci in the production of the disease; but the opinions regarding them are as yet too unsettled to permit of a decision in the matter. Many investigations, however, were at present being pursued in the laboratories of Germany and France, and there was a fair prospect of success in the solution of the problem. But, although we did not know the exact nature of the poison, there could be no doubt that such a poison did exist, and that there were only two methods by which it could be introduced into the system. These were, first, through the atmosphere, and, secondly, by the contact of the hands of the physician or nurse, or of clothing or bed-covering with the genital tract.

While in lying-in hospitals positive rules were always adopted for the management of all cases, in private obstetric practice there was, as a rule, a laxity of caution which bordered closely on criminality. Prophylaxis was, however, the plain duty of every practitioner, and the following rules ought to be carried out in every case of confinement:

First. The room should be cleared of all upholstery, as far as possible, and the floor, walls, ceiling, and every article of furniture sprinkled with a ten per cent. solution of carbolic acid, or a solution of bichloride of mercury of the strength one part to a thousand of water.

Second. The nurse and accoucheur should be scrupulously clean about their persons, and use upon their hands and clothing some antiseptic wash, especially if within the past fortnight they have been exposed to the contagion of scarlatina or other septic influence. The disinfectant preferred was a saturated solution of boracic acid.

Third. As soon as labor begins, the nurse, having cleansed her hands thoroughly with a stiff nail-brush, should make a warm antiseptic vaginal injection, and repeat it every four hours, in the mean while keeping a cloth over the vagina.

Fourth. Both the physician and nurse should use upon their hands and upon every instrument or utensil employed during the labor a solution of bichloride of mercury (1 to 1000).

Fifth. The third stage of labor should be efficiently produced, and ergot should be immediately administered, and afterwards kept up in moderate doses three times a day for at least a week.

Sixth. The physician should take nothing for granted on the nurse's assertion, but, at the end of labor, should make an examination of the genitals. If rupture of the perineum is found, it should be united at once by suture. If a slight abrasion is discovered, the parts should be cleansed with a linen cloth, and persulphate of iron and carbolic acid applied, after which the parts should again be dried with a cloth, and painted with gutta-percha collodion.

Seventh. In six or eight hours, a suppository of cocoa butter, containing from three to five grains of iodoform, should be placed under the os uteri. This should be repeated every two or three hours for at least ten days.

Eighth. In ordinary cases, vaginal injections of a solution of bichloride of mercury or other disinfectant should be made every eight hours with a syringe throwing an intermittent stream.

Ninth. When catheterization is necessary, use a new gum-elastic instrument, first dipping it in an antiseptic solution. Nurses should never be allowed to

use the old silver catheters which they are sometimes in the habit of keeping about them.

Tenth. Last, but not least, let the physician convince himself practically of the nurse's ability to use the syringe and catheter, and to insert suppositories properly.

Even if all the above suggestions were carefully carried out, the trouble of the plan would not be great, and the accoucheur would be amply repaid by the satisfaction of having performed his duty. In the case of a fatal result, this would be a source of unspeakable comfort to him. It was clear that the observance of such rules as these would do much to increase the importance of parturition in the eyes of the profession; so that a woman about to bring forth would come to be regarded in the light of a patient who was to undergo a capital operation. Having again quoted the report of the Berlin Obstetrical Society in support of his views, he went on to say that he wished to record in the strongest language his protest against the use of intra-uterine injections as a prophylactic, except after very severe operations within the uterus which rendered the occurrence of septicæmia almost certain. It was a dangerous method, which was only justifiable as a means of treatment in the presence of a still greater danger.

In spite of every measure taken to prevent it, septic disease sometimes occurred. The poison might not be a necessarily specific one. It was probably the same as that giving rise to septicæmia after gunshot wounds. It was, he believed, however, entirely different from the kind of infection arising from an adherent placenta or a retained mass of blood. It was capable of causing the true, specific lymphangitis, and in many country neighborhoods it was entirely unknown. Out of three thousand cases, Hervieux had had but one case of puerperal septicæmia. As soon as the patient is stricken with the poison, marked phenomena present themselves; after a chill, high temperature and quickened pulse follow. The fever was accompanied by headache and pain in the back, and sometimes by nausea and vomiting. At the beginning, the physician could form no idea of what course the disease might pursue; but if the precious moments at the outset were passed in inactivity, an advantage would be lost which could never be regained. Whatever form the disease might ultimately take, whether cellulitis, phlebitis, peritonitis, or other variety of trouble, he could strike at the root by taking prompt action. In the case to be supposed, it was assumed that the attack was a violent one, and that the patient's friends were possessed of ample means. The method of treatment recommended was as follows:

First. As soon as it becomes probable that puerperal septicæmia is setting in, a hypodermic injection of Magendie's solution of morphia should be given (unless there is some special and strong contraindication), to allay pain and nervous irritability. Afterwards, this should be repeated every six or eight hours, as a rule. In Dr. Thomas's experience, no method of administering opium compared with this in efficiency. If a new hypodermic needle, first washed with soap and water, and then dipped in a solution of bichloride of mercury, was employed, there would be no danger of causing abscesses. It was the old, rusty needle which did this.

Second. An India-rubber cloth should be spread over the edges of the bed, and the patient's feet having been placed on chairs, and the knees carefully covered with blankets, an intra-uterine injection of solution of bichloride of mercury (one to one thousand) should be made. The tube recommended was the glass one of Dr. Chamberlain, modified by reducing the number of waste holes, so that the injection could

be carried more effectually to the fundus. Another instrument recommended was the ingenious metallic tube devised by Dr. George H. Lyman, of Boston, which had the advantage of affording a perfect means of escape for the fluid injected into the uterus. In either case, the instrument was to be fitted to a Davidson or Higginson syringe, the intermittent action of which was considered much preferable to the continuous but feeble stream of the fountain syringe. In any case where it was supposed that a portion of the placenta was retained, chloroform was to be given, and the adherent parts, if found, removed by means of the nails acting as a curette. In other cases, it was desirable to carry a sponge dipped in antiseptic fluid up into the uterus.

The method of intra-uterine injection was attended with the following dangers:

First. The entrance of air into the uterine sinuses.

Second. Hemorrhage.

Third. The carrying of poison by the extremity of the syringe directly into the circulation through the open sinuses.

Fourth. Pain, shock, or convulsions, from the effect upon the nervous system.

Fifth. Entrance of fluid into the peritoneum through the Fallopian tubes, and consequent peritonitis. Great care should, therefore, be practised in making the injections, and the tube should never be allowed to fill completely either the *os internum* or *os externum*. In order to prevent this, it is sometimes necessary first to dilate the *os* with the fingers, by means of Barnes's dilators, or in some other way.

It is desirable to have persulphate of iron always on hand, in case of hemorrhage from dislodgment of a thrombus. If this occurred, ergot should also be used freely. Several deaths have been reported from the use of intra-uterine injections. In a considerable experience with them, Dr. Thomas, however, has met with but one fatal case. The frequency of the injections should vary according to the severity of the disease. In mild cases one in every five hours was sufficient. In others the injections should be repeated every three hours, and in bad cases every hour. They should always be made by the physician, and administered with strict attention to details; special care being taken that the fluid always reached the fundus. Dr. Thomas has himself believed for several years in the efficacy of the steady stream of the fountain syringe; but he had afterwards become convinced that the intermittent stream was much preferable. Some had adopted the plan of continuous irrigation; but this he believed to be a delusion and a snare. The objection to it was the difficulty of getting the germicide fluid in contact with the whole endometrium by this means. For use in the vagina it was very desirable, and in very severe cases it might be useful to keep up constant irrigation of the uterus, and then, in addition, use the intermittent stream every three hours. That plan was the best which accomplished most thoroughly the cleansing of the parts.

The third point in the treatment was to control the high temperature, which was one of the immediate factors of a fatal issue. Even if the fever did not prove fatal, its effects are always more or less serious. For the reduction of this he had formerly employed Kibbee's cot, but was now in the habit of resorting to the use of Townsend's rubber coil in preference. This was simply a mat made up of a long rubber tube coiled in circles upon itself and which, when in position, covered the entire abdomen; extending from the symphysis pubis to the ensiform cartilage. Through this a constant stream of iced water flowed; the extremity into which the water entered being provided with a little strainer to prevent the tube from becoming clogged

by any impurities contained in the ice employed. The tub of iced water was placed about two or three feet above the level of the patient's body, and the end of the tube containing the strainer was anchored in it by a weight. The other end, by which the water escaped, emptied into a tub on the floor. By means of this refrigerating coil a temperature of 104° could be reduced to 100°, and kept at this point for weeks together. To this excellent method, however, the nurse, the patient, and the friends of the latter are apt to make the strongest objections, and even some physicians denounce it as liable to give rise to pneumonia, pleurisy or other serious attack. But such fears are entirely groundless. In the Woman's Hospital after laparotomy it was as freely in use as poultices, and every one of the successive house-staffs leaving the institution went away thoroughly impressed with its superior advantages. In some cases its effect was not apparent for a considerable time; so that the temperature was not reduced for twenty-four hours, and even longer. In every case its prolonged use was essential, and removing the coil from the body for even an hour at a time might be productive of much injury. Dr. Thomas had never seen any bad results from it if hot water bottles were kept applied to the soles of the feet. He had never known pleurisy or pneumonia to be caused by it.

In the fourth place, febrifuges given by the mouth were advised, especially for the purpose of keeping off chills. Fifteen grains of quinine might be employed night and morning, or, in place of this, two capsules of Warburg's tincture, as recommended by Dr. John T. Metcalfe. Salicylate of soda was also of service in some cases.

Fifth. The patient should be sustained principally by a milk diet, but the animal broths are also to be freely used.

Sixth. Efficient and abundant assistance is absolutely essential for the proper carrying out of the treatment. With only one nurse and one physician, this is simply impossible. A day nurse and a night nurse are required, and it is highly desirable that a physician should be in the house the entire time. As to the various antiseptic agents to which attention had been called during the last few years, only two seem to be of really practical service, carbolic acid and bichloride of mercury. For the use of the latter in this connection, the profession is mainly indebted to the investigations of Koch, and for an intra-uterine injection it is to be used in the strength of one part to a thousand. If carbolic acid be used, a two per cent., or two and one-half per cent. solution is the best for this purpose.

DR. WM. M. POLK said that the Academy was deeply indebted to Dr. Thomas for his able and even eloquent presentment of this most important subject. He had left but little to be said, as regards the treatment of puerperal septicæmia. In the matter of pathology, he thought it would perhaps have been better if he had planted himself squarely in the position that puerperal fever was identical with pyæmia and septicæmia. For himself, he considered it absolutely identical with surgical septicæmia and pyæmia. The lesions were those which belonged to these affections; and it was only in the domain of etiology that those who were opposed to this view found their ground of support. They claimed that there was some peculiar and specific germ which gave rise to the trouble. In regard to the treatment, the principles of Listerism, as laid down by Lister and his followers, and as ably set forth to-night by Dr. Thomas, entirely covered the ground. He would merely add that in this city, where there was so much bad drainage, the question of the purity of the air breathed by the patient assumed great importance. So

far as the means of actual treatment were concerned, he had one suggestion to make. In his experience, he had found, sometimes, that he had been using intra-uterine irrigation when the lesion which was killing the patient was really in the cervix, and the stream employed was not of sufficient strength to separate the surfaces. His plan now, therefore, was to place the patient in the ordinary position for the purpose, and make a thorough examination by means of Sims's speculum. The entire canal as far as the os uteri could thus be observed, and if any lesion were observed, a strong solution of carbolic acid or other antiseptic was applied directly to the spot. If no source of trouble could thus be detected, he swabbed out the interior of the uterus with borated cotton dipped in a two per cent. solution of carbolic acid, and perhaps used in addition Skene's broad curette, the edge of which was blunt. In conclusion, he would only say that if we were to adopt the preventive measures so forcibly insisted upon in the paper, we must go further and plant ourselves firmly on the ground that puerperal fever was identical with surgical pyæmia and septicæmia.

DR. JAMES B. HUNTER said that he wished to speak of only two or three purely practical points. There was great difficulty in carrying out the energetic plan of treatment recommended by Dr. Thomas. Thus there are many people who are neither poor nor rich, and while they could not avail themselves of the facilities offered by the hospitals, they could not possibly afford the expense which such a plan entailed in their own homes. It was very important, he thought, that the patient should be disturbed as little as possible, and on this account he considered it objectionable to have to move the patient to the edge of the bed every time that an injection was made. His own plan was simply to slip a bed-pan under her, and administer the injection while she was lying upon the back. As to the instrument employed, he had found that with the ordinary Chamberlain tube the fluid could not be carried to the fundus, and he had therefore had a tube made which was about half the size of this, and which had orifices only at the end. The reason that he employed so small a tube was that he had found that the os uteri contracted considerably after two or three hours, and it was sometimes necessary to dilate it. Nott's double catheter answered very well for making intra-uterine injections. In carrying out the plan of injections, opposition was likely to be met with on the part not only of nurses and patients, but of physicians. In one or two cases, he had seen slight chills caused by them, but he believed them to be due to the fact that the water was not warm enough. In regard to the cooling apparatus, he did not believe that the coil was called for in simple puerperal septicæmia. In peritonitis, however, and after laparotomy, he had the strongest faith in it, and constantly employed it in his practice. In septicæmia, even if the fever were kept down to a low point, the disease might be of the most serious nature. When the coil was used, he preferred the metallic tubing, as being lighter and more readily kept clean than the other.

DR. PARTRIDGE advocated the injection of iodoform suspended in glycerine after the ordinary douche, as suggested by the late Dr. Brinsly Livingston.

THE PRESIDENT then said that twenty-five years ago the Academy had had a long discussion on puerperal fever, and eight years ago a similar one had been held in the London Obstetrical Society, during which he had had the honor of having a special evening set apart for the exposition of his own views on the subject. He believed that there were many others present who would like to have an opportunity of expressing their opinions, but who could not do so this evening

on account of the lateness of the hour; and he would, therefore, make the proposition that the first meeting in February should be devoted to a discussion of this subject. At the second meeting in January, a well-known surgeon was to read a paper on antiseptic treatment in general surgery, and it would, therefore, come in very appropriately. On motion, Dr. Barker's suggestion was adopted, and the Academy then adjourned.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday Evening, Nov. 22, 1883.

THE PRESIDENT, JAMES TYSON, M.D., IN THE CHAIR.

DR. J. H. MUSSER exhibited the

LARGE INTESTINES FROM TWO CASES OF CHRONIC DYS-ENTERY; ONE OF THEM SHOWING PSEUDO-POLYPI.

Case I.—The patient had chronic dysentery; further clinical information cannot be given. No record of autopsy preserved. The specimen is from the museum of the Presbyterian Hospital, and is presented on account of its rarity. It is a part of the large intestine, fourteen inches long. To the naked eye it shows thickening of the mucous and submucous layers, and hypertrophy of the muscular layer. On the surface of the mucous coat, innumerable polypoid growths are observed, some pedunculated, some sessile. The sessile growths are from the size of a millet-seed to that of a chestnut, round or ovoid. The others also vary in size from a pea to a large bean; their pedicle is generally from one-sixteenth to one-eighth of an inch long. The reporter remembered seeing the specimen when recently removed, and knows there were more pseudo-polypi than are here visible, many having fallen off from handling, etc.; that there was scarcely any healthy mucous membrane; that in this part of the intestine, there was almost complete ulceration of the mucous coat. At one point, a large stellate cicatrix, depressed in the centre, is noticeable, while all over the surface cicatricial lines are observed, most distinct about the bases of the growths.

In connection with this specimen, Dr. Musser called attention to a minute description of a similar specimen by Dr. J. J. Woodward, U. S. A., whose article appeared in the *AMERICAN JOURNAL OF THE MEDICAL SCIENCES* for January, 1881, and is entitled "Pseudo-polypi of the Colon; an Anomalous Result of Follicular Ulceration." According to the writer, the origin and development of these polypi are as follows: 1. A granulating ulcerated surface of the intestine. 2. Numerous islets of mucous membrane on this surface. 3. "The formation of cicatricial contractions commenced in the infiltrated submucosa, constricting the margins of the islets of mucous membrane which were further transformed by hyperplastic inflammatory processes until ultimately they acquired the form of pedunculated excrescences, and projected into the lumen of the intestine, like so many little polypi"—being pushed out by the contraction of the connective tissue. Although the surface of the mucous membrane appeared to the naked eye healthy, the microscope showed that it was submucous connective tissue infiltrated with lymphoid elements. The pseudo-polypi were composed of a central portion of connective tissue and a peripheral portion of diseased mucous membrane, the former continuous with the submucous layer, the latter limited to the surface of the growth. The histological changes in the mucous and submucous layers resembled those of chronic inflammation. The remainder of the bowel showed follicular ulceration. I am unable to say what was the condition of other parts of the bowel in the specimen exhibited.

Case II.—The specimens were removed from a patient who had been a sufferer from chronic dysentery for some time. The bowel affection was especially severe during the past summer. He had been ill of an acute exacerbation for about one week when medical advice was sought. The symptoms were those of an acute dysentery, but were not alarming. The effects of the habit of using chloroform, chloral, and alcoholics to excess, which habit he continued during his illness, complicated the clinical features. About the tenth day of his illness the typhoid state suddenly developed, and he died in coma two days thereafter. His temperature never was higher than 102°, tormina and tenesmus were marked, bloody and mucous discharges were excessive.

Autopsy, eighteen hours after death: Rigor mortis marked; body well nourished. On section, the abdominal walls were loaded with fat, and large deposits of this tissue were found in the great and lesser omentum, the mesocolon, and the epiploicæ. The mesenteric and lumbar lymphatic glands were not enlarged. The cæcum was surrounded by old lymph; the appendix was bound down by adhesions and thickened. The cæcum was dilated, the transverse and descending colon contracted; the walls of the entire colon were thickened. On opening the large intestine, it was found to be extensively ulcerated. The mucous membrane and the ulcers were strikingly anæmic, and of a pale cream color; there were no points of hemorrhage. The walls were thickened, the mucous membrane swollen, the ulcers were more numerous and larger in size at the cæcum. The smaller ulcers were the size of a dime; some of the larger extended around the gut, and were from one-half inch to an inch wide. The edges of the ulcers were regular, bevelled, and thickened, the floor rather clean; the deepest did not extend beyond the muscular coat, the more superficial only included the mucous membrane. The larger ulcers were on the tops of the folds of the intestines. A tenacious, thick mucus covered alike the ulcers and the adjacent structures.

Condition of other organs: Liver enlarged and fatty; kidneys markedly cirrhotic; spleen normal; heart slightly hypertrophied. Microscopical examination revealed the changes in the intestine of chronic inflammation, and that the ulceration was of a simple nature and not due to tubercle.

DR. W. G. MACCONNELL presented the specimen from

A CASE OF CARCINOMATOUS SARCOMA OF THE LEFT TESTICLE

which was removed from a young man, by Prof. Brinton, at the surgical clinic of the Jefferson Medical College Hospital, on Wednesday, November 7, 1883. History: Jacob A., æt. 26 years, a clerk; about eighteen months ago he struck his testicle in mounting his horse on the pommel of the saddle, from the pain of which he fainted; no inflammatory enlargement however of the organ ensued. Last May he noticed that the left testicle had begun to enlarge, and continuously increased in size until it had attained its present volume. There was a sense of heaviness in the tumor, but no pain was experienced until about two weeks prior to its removal, when he noticed a periodical pain of a burning nature, which, with the increasing size of the organ, caused him to apply for relief. It weighed about eight ounces and measured in its long diameter four and a half, transversely three and a quarter inches, and about two and a quarter inches in thickness. No lymphatic involvement was present, nor was the cord involved; the veins of the scrotum were enlarged and prominent. The tunica vaginalis testis is slightly thickened, and very opaque; the tunica albuginea is also thickened; a slight remnant of the epididymis exists,

in the form of a small fibrous lump. Its shape is somewhat that of a kidney, and upon section showed a moderately firm buffy colored tissue; it did not cry under the knife. In color and consistence it resembled the soft fibromata; distinct remains of the fibrous septa are to be seen; there are no cystic changes or any chondroid tissue present. Its macroscopical appearance and consistence suggested a spindle-celled sarcoma, and as such upon section I diagnosed it. Microscopically at a first examination, from the great ecstasy of the epithelium present, I was inclined to regard it as a pure medullary carcinoma; but after a careful study of several sections, I am inclined, by reason of the juvenescence of the connective tissue, both round and spindle-cells being present, to call it a carcinomatous sarcoma. There was no history of syphilis, scrofula, or tubercle, nor had any member of his family ever labored under any form of tumor.

DR. NANCREDE called attention to the fact that modern microscopic study has shown that carcinoma of the testicle is a rare disease, most malignant tumors of that organ being really sarcomata. In this connection it is of much practical interest to note that the system becomes infected at a relatively late period of the disease, so that when a sarcomatous testicle is removed at an early stage of the disease, prolonged immunity, if not actual cure, resulted. The inguinal and retro-peritoneal glands were those affected, their enlargement, by pressure, pain, etc., being the ultimate cause of death. Even more distant lymphatic glands are in rare cases involved.

DR. FORMAD agreed with Dr. Nancrede. Some years back he had paid special attention to the study of malignant growths of the testicle and ovary. Of the former he had examined thirty cases, all of which were sarcomata. He did not believe in the existence of such a growth as true carcinoma of either the testicle, ovary, or kidney. The so-called carcinoma of those organs exhibits cells of a *connective-tissue type*, rather than of an epithelial. Dr. Formad considered, with many other observers, that the so-called epithelial cells of kidney, testicle, and ovary are really *endothelial*, and gave reasons in support of this view. He further said that there is a variety of endothelial carcinoma occurring in the breast, which is that usually described as alveolar sarcoma. Here the endothelial cells of the lymph-spaces proliferate, but the glandular elements of the mammaræ do not participate. It is doubtless from the examination of such tumors that Virchow and Cornil and Ranvier have gained the erroneous idea that true carcinoma takes its origin from connective tissue. He suggested the term "*endothelial carcinoma*" for such tumors, instead of "*alveolar sarcoma*."

NEW YORK SURGICAL SOCIETY.

Stated Meeting, November 13, 1883.

THE PRESIDENT, THOMAS M. MARKOE, M. D., IN THE CHAIR.

TUBAL GESTATION; RUPTURE OF THE TUBE AT THE END OF THE SECOND MONTH; INTERNAL HEMORRHAGE; ABDOMINAL SECTION: LIGATION OF TUBE; DEATH IN FORTY-SEVEN HOURS, FROM SHOCK.

DR. CHARLES K. BRIDGON presented a specimen, accompanied by the following history: Mrs. K. I. K., æt. 28, a short, stout brunette, measuring five feet and less than one inch, and weighing one hundred and fifty-five pounds, is the mother of two children, one three years, the other thirteen months old. She has always enjoyed good health. Her last normal menstruation occurred on the tenth day of August, 1883. Two months subsequently, on the tenth day of October,

she had a flow of clotted blood, accompanied by pain of an intermittent character. On the sixteenth day of the same month, while out walking, she was taken with sudden severe pain, and was obliged to sit down for some minutes. The pain continued with diminished severity until after she reached home. When I saw her she was suffering considerably. The pain was pelvic, and did not appear to be more acute on one side than on the other. It was continuous, but aggravated at uncertain intervals by paroxysms of increased severity. She says that when the pain attacked her in the street she felt something flow from her vagina, but on examining her linen found it only soiled with a little mucus. She complained of being unable to urinate. There was no increase of temperature; no acceleration of pulse, or of respiration. On making an examination, I found the os low, and slightly displaced forward. It was soft, and dilated sufficiently to admit the first phalanx of the index finger. The body of the uterus was exquisitely sensitive and enlarged. Though the physical conditions of retroversion were not present, I thought the inability to urinate might be occasioned by some mechanical impediment. I emptied her bladder, and placing her in the knee-elbow position, found that on opening the vulva the uterus receded, and there was nothing at all to be felt in the cul-de-sac. Rest, and a few doses of chlorodyne for treatment, and in a few days she was well.

On the afternoon of the 29th she was again attacked with pain, and although there was no flow I suspected that abortion was imminent, and prescribed an anodyne and rest. I received a second urgent message to see her at 7 P. M., and found her suffering from symptoms of internal hemorrhage. She exclaimed that she was dying. Her extremities were cool, her face was pallid, and I could detect no radial pulse. I had no hesitation in expressing the opinion that the case was one of tubal pregnancy, and that rupture had taken place. I explained the dangerous character of the condition to her husband, the probability that prompt action would have to be taken, and I requested counsel. Dr. H. F. Walker saw the case with me before nine o'clock, and suggested that we should call in Prof. T. G. Thomas, who saw the patient at half-past nine. There was no division of opinion, all were agreed that an abdominal section and the institution of such means as would secure against the further escape of blood, were the only ones calculated to afford even the slightest chance of recovery. The consent of the patient and her friends being obtained, the only delay was occasioned by the insistence on their part that she should receive the sacrament before the operation.

I was ably assisted by my friends, Drs. Gerster, Walker, and Scharlaw, and it affords me great pleasure to testify to the kindness and promptness with which they responded to my call for assistance under very trying circumstances. Ether was administered by Dr. Scharlaw, and very little indeed was used. The corpulence of the patient made it necessary to make a long incision, reaching from the umbilicus to the pubis. Her collapsed condition rendered this almost a bloodless proceeding. When the peritoneum was exposed a small incision was first made, which gave exit to a large amount of fluid blood. The incision was then enlarged sufficiently to admit the hand, and at least a pint of blood-clot was scraped out as rapidly as possible. The uterus was then drawn up as far as its connections would permit, and the cause of trouble was at once apparent. Part of an ovum, one inch and a quarter in diameter, was found protruding from a rent in the left Fallopian tube close to its uterine extremity. The broad ligament was lifted as much as possible, and a probe armed with a double, stout, plaited silk ligature was passed through it as low down as could be

done, and the ends were firmly secured above the free border. In these manipulations the ovum was forced from its bed in the oviduct, and was removed entire. The hemorrhage appeared to be entirely controlled. The ligatures were cut short, and the toilet was completed by thorough cleansing of the cavity. The wound was then closed by silver-wire sutures. No time was lost in completing the dressing, but the patient was removed at once to bed, and surrounded with blankets and not bottles. Her head was enveloped in a warm woollen shawl. A small hypodermic of morphine was administered, and brandy used subcutaneously. It was not, however, until after midnight that an occasional flicker could be felt in the pulse at the wrist. Vomiting, which occurred, was treated by frequent sips of hot water, nutrient and stimulant enemata were used all through the night. On the morning of the 30th, her appearance was much improved. She was inclined to talk, was even cheerful, and expressed herself as entirely free from pain. She only complained of vomiting, but notwithstanding these favorable signs her pulse could scarcely be felt, much less counted. At times it could not be distinguished at all. Temperature was 101°, respiration 36. At 10 A. M., her pulse could be counted, 126, and after this it improved for twenty-four hours, averaging 130; temperature for the same period, 101° to 102°. In spite of the most assiduous stimulation, the circulation could not be maintained. She began to sink on the afternoon of the 31st, and died at 9.30, forty-seven hours after the operation.

Secio Cadaveris.—October 31st, 11 P. M. Abdomen only moderately distended. Abdominal wound agglutinated, but easily separated. Omentum adherent to peritoneal surface in the neighborhood of the line of incision; no general diffuse peritonitis. About two ounces of odorless bloody fluid in the cavity of the pelvis; the left broad ligament adherent to anterior wall of rectum; uterus enlarged to nearly twice its normal dimensions. At the junction of the left oviduct with, and encroaching upon the cornua itself, was an ovoid swelling about one inch in diameter, darker than the surrounding structures, of a mottled violaceous maroon color. Near the junction of the posterior wall of the duct with this swelling was a ragged opening, half an inch in length, and leading into a cavity formed mainly out of that portion of the duct which traverses the uterine wall, so that the specimen might be said to represent the variety known as interstitial, or, more correctly, sub-interstitial. On incising that portion of the cavity which was developed at the expense of uterine textures, it was found filled with adherent coagulum. The cavity of the uterus was not lined with decidua, and the uterine opening of the oviduct was impervious. Outside the rent were found the ligatures applied during life, and which had effectually controlled the hemorrhage.

Remarks.—About twenty years ago, a surgeon of this city, the late Dr. Stephen Rogers, was a vigorous advocate for the performance of laparotomy in cases of internal hemorrhage due to rupture of the oviduct, but the profession at that time was not prepared to accept the proposition. The great advances that have been made in abdominal surgery since then have paved the way, and although I am not aware that the operation has been performed, I can state advisedly that the matter has been much debated, and that the views of Dr. Rogers are now generally approved. Grailey Hewitt says, in the last edition of his work on the pathology, diagnosis, and treatment of the diseases of women:

"In cases of Fallopian pregnancy, if it were possible to make an exact diagnosis of these cases of rupture and hemorrhage during life, it would undoubtedly be better to open the abdomen, and endeavor to secure

the bleeding vessels than to allow the patient to die of hemorrhage. No operation of the kind has ever been attempted, but the subject has formed matter of discussion on more than one occasion at the meetings of the Obstetrical Society of London."

Lawson Tait, in his recent book *On the Diseases of the Ovaries*, says:

"I have very little doubt, however, that many of these cases would be saved by prompt action. The difficulty is, of course, in the diagnosis, some certainty of which is requisite before an abdominal section can be performed. I have twice been on the point of performing abdominal section on account of suspected rupture of a Fallopian tube, and have been prevented by scruples as to the correctness of the diagnosis. In both cases, post-mortem abdominal section showed that the suspicion was correct, and I believe both of these patients might have been saved."

Other authorities might be quoted, endorsing the opinions thus expressed, but I think these will suffice to show the general conclusions of those most familiar with the subject. In the case which forms the basis of this communication, the subject of transfusion was entertained, and rejected. Previous to the operation, I could only conceive that it would have been harmful where we have to deal with concealed hemorrhage, and there are such doubts as to its precise location and character as may render it questionable whether we are warranted in adding the shock of an operation to that already existing. The issue of the case will depend upon the success with which we can keep the circulation at a minimum consistent with life. If we resort to means which raise arterial tension, we shall interfere with the conservative progress which we initiate with more or less success in the application of hemostatics, and certainly cause further leakage from partially occluded vessels. In this case, after the blood-supply was cut off by the application of ligatures, I had faith in the natural robustness of the patient, and though she hovered between life and death for twenty-four hours, the condition of the pulse after that time and up to within a few hours of death justified the confidence I had placed in those resources. The heart failure, which occurred more than forty hours after the bleeding was arrested, I attributed to shock, which I did not think could be beneficially influenced by transfusion, and, consequently, did not feel warranted in resorting to a means that I certainly do not regard as free from danger.

ANCHYLOSIS OF KNEE IN FLEXED POSITION; RESECTION; WIRING BONES TOGETHER IN A STRAIGHT POSITION; GANGRENE OF LEG AND FOOT; AMPUTATION OF THIGH; DEATH.

DR. A. C. POST presented a specimen, accompanied by the following history: A. P., mulatto, ætatis 38, left knee ankylosed in a flexed position at an angle of 60°. At the age of eleven years, he cut his knee with an axe, and the ankylosis was the result of the inflammation which followed the injury.

July 5, 1883, I operated on him by making a transverse incision over the greatest convexity of the knee, the incision dividing the integument over the anterior and lateral parts to the extent of three-quarters of the circumference of the limb. Several small arteries were cut and tied. I then with a saw removed a large wedge-shaped segment of the bone, and afterwards several smaller fragments. I also divided the tendon of the biceps, semitendinosus, semimembranosus, gracilis, and sartorius, after which I was able to bring the bony surfaces in contact, in an extended position of the limb. Considerable resistance was offered by the pop-

liteal nerve, which finally yielded without rupture. I then drilled four holes obliquely through each segment of the bone, through which I inserted flexible iron wires, which I twisted so as to keep the bones in position. After this, I applied an iron splint along the posterior surface of the limb, and one on each lateral surface. The lateral splints were each bent at four right angles, so as to leave an open surface on each side of the knee. Plaster-of-Paris bandages were then applied over the thigh and leg, holding the splints in position, but leaving a space of more than six inches over the knee uncovered, so as to give free access to the wound. The wound was washed with carbolic acid, 1 to 40, and the integuments were brought together with sutures, except at the posterior part, where a large, open space was left for drainage. The parts about the wound were then covered with lint, wet with carbolic acid, 1 to 40. The operation was completed at about seven P. M. At about eleven P. M., I was summoned to the patient, on account of hemorrhage. I found that there had been considerable oozing of venous blood. I had the limb elevated; applied compresses over the wound, secured by a roller bandage, and suspended the limb to the ceiling, with the foot elevated about fifteen inches above the bed.

July 6.—There has been no return of bleeding. The patient has been much more comfortable since the suspension of the limb. As his circulation was very languid, and he had been accustomed to the free use of alcoholic drinks, I directed an ounce of whiskey once in three hours, in the form of eggnog or of milk-punch.

7th.—He has had frequent vomiting, and has scarcely retained anything on his stomach. A sinapism was directed to be applied over the epigastrium, and a scruple of calomel was administered, after which porter and lime-water were directed to be given, a half ounce of each every hour. Rectal alimentation was ordered, with stimulants.

8th.—Vomiting has nearly ceased. His pulse has a little more force, but is still feeble. The integument about the heel has a livid appearance, but has not lost its sensibility. The lower flap of integument in front of the knee is quite hard, but the upper flap is of a good color.

9th.—The leg and foot are decidedly gangrenous. I amputated the thigh about eleven centimetres above where the bone had been divided in the resection, leaving a large anterior flap.

10th.—The patient has not rallied well since the amputation. The pulse is feeble and the surface cold. He continued to sink, and died in the afternoon. He had taken stimulants freely, but very little food.

The fatal result in this case was largely to be attributed to the previous habits of the patient.

TUBERCULAR ORCHITIS.

DR. A. G. GERSTER presented a specimen with the following history. It was a testicle removed from a man forty-one years of age, and was the seat of tubercular orchitis. A diagnosis was made before any fistula formed, from the fact that an acute orchitis, which resulted from injury, had never completely subsided. The patient, two or three weeks before Dr. Gerster saw him, had chills and night sweats, and the spermatic cord became infiltrated and indurated close up to the internal ring. Castration was performed and the patient did well. When the tunica vaginalis was opened the tissues presented an appearance similar to that seen in fungous condition of the joints, but the centre of the testicle contained a large tubercular focus.

The Society then proceeded to the transaction of miscellaneous business.

NEWS ITEMS.

BOSTON.

(From our Special Correspondent.)

THE CHILDREN'S HOSPITAL.—A description of the new building for the Children's Hospital of this city, completed one year ago, was given at that time in *THE MEDICAL NEWS*. It will be remembered that the building, as it then stood, was composed of the central main structure and the western wing. The plans of the architect include an eastern wing, which has not yet been added, but will be so soon as needed and the means allow. The large dwelling-house formerly occupied by this charity had accommodations for thirty patients. The new hospital, as now arranged, can accommodate sixty patients. The number treated during the past year has been much larger than ever before, and it is for this reason that the hospital management has just issued an appeal for more funds. If the public fails to respond, the alternative pronounced is either that the use of the hospital must be limited to a few patients or be closed.

This rather startling statement undoubtedly will arouse the friends of the institution to the necessary effort, for the charity is one which cannot be spared. The appeal calls for funds, not only for this year, but for several years to come. The invested funds of the hospital pay an income of \$5000. The income necessary for the proper conduct of the hospital is \$16,000. The need, therefore, is about \$12,000 additional yearly. The names attached to the appeal are so influential that it is thought a generous response will be made.

HARTFORD.

(From our Special Correspondent.)

TYPHOID FEVER IN CONNECTICUT.—There has been during the last few years a very marked increase in the prevalence of typhoid fever in this State. From 1872, when malarial diseases had become prevalent over a wide area, until 1880, there was a very decided decrease, in fact, a total disappearance of the disease in many places, so that the percentage of deaths, from all reported causes, fell from an average of about 4.54 to 1.77 in 1879. Since then, there has been a rapid increase in the number of cases of typhoid fever. This has been very noticeable from the fact that for a long period so few cases were seen. Even where malarial diseases did not exist, there was a decrease in the prevalence of typhoid fever. This is clearly shown in the table on pages 77-82 of the fifth report of the State Board of Health of Connecticut, also in the one on page 110 concerning typhoid fever since there has been a registration law in the State. Since 1882, the disease has about reached its former rank as one of the ten principal causes of death, and not the lowest place among them either.

In many places outside of Connecticut, there have been during the last two years epidemics of typhoid fever in Paris, London, New York, Providence, and elsewhere, so that it would appear that there were some general conditions favorable to the development of typhoid fever, in addition to the local unsanitary conditions that might determine the place where the epidemic should appear, or else a general movement in obedience to some law of periodicity not yet generally understood.

Whatever may be the causes, there has been a very decided increase in the number of cases of typhoid fever. There have been no extensive epidemics—that in *Waterbury* has been the most marked. There the upheaval of the streets in laying a system of sewer pipes for the city, and the long-continued dry weather,

favoring all unhealthy telluric influences, as well as lowering the reservoirs and wells, furnished the only general local conditions favorable to the disease.

Last autumn there was quite a large number of cases in *Hartford*, with ten deaths in September.

This year there is more typhoid fever than there has been for some years in *New Haven*, but no epidemic.

Had there been the usual amount of typhoid fever from year to year, the number of cases would not attract so much attention. There have been many exaggerated reports, and other diseases have been confounded with typhoid fever. This is the case in regard to *Forestville*, where the closing of the schools to prevent the spread of diphtheria, has been stated to be due to an epidemic of typhoid fever, of which there have been but three cases, as far as I can learn. So in *New Haven*, there have been several cases of typhoid fever among the students, but one or two of which were contracted at the college, or were among persons occupying rooms at the college. The fact that typhoid fever is unusually prevalent in the city, has, no doubt, led to the mistaken idea that there has been a large number of cases at the college.

From reports from other places, it would appear that there have been some general conditions during the last few months favorable to the development of typhoid fever, and that there has not only been an unusual prevalence in localities where local unsanitary conditions favored its development, but also here and there epidemics of greater or less severity.

In this State where there had heretofore been supposed to be such an antagonism between the diseases that when one appeared the other must of necessity disappear, we have of late seen side by side typhoid fever and tertian ague, and, in fact, typhoid fever in one house, and typho-malarial fever in the next, or some other variety of malarial disease. While we hope that this return of typhoid fever is an indication that malarial diseases are about to leave us, and, in fact, a noticeable decrease in their frequency and in the general tendency towards periodicity in all diseases strengthens this hope. There is no such antagonism between malaria and typhoid that excludes the one if the other be present.

CHICAGO.

(From our Special Correspondent.)

ST. LUKE'S HOSPITAL.—The new building of St. Luke's Hospital, which, it was expected, would be ready for occupancy this winter, it is now announced cannot be completed before next June. There have been expended already \$70,000, and nearly as much more is asked for. In the old building the institution, during the past year, cared for upwards of eighteen hundred patients both in and out of the wards. This hospital is the work of the Protestant Episcopal Church, and draws most of its support from that order. Six beds have been endowed at \$4000 each, and eighteen are supported by annual payments of \$300 each. This is certainly a fairer basis for endowment of beds in hospitals than that adopted by our "Relief and Aid Society" after the great fire. The Society endowed nearly or quite one hundred beds in the various hospitals of the city, from funds donated at the time of the fire, at \$1000 each. Of course the Society does not keep these beds full, even in times of epidemics. If they did, it would ruin any one of the hospitals.

ST. LOUIS.

(From our Special Correspondent.)

A NEW-CODE SOCIETY TO BE FORMED.—A new medical society is being formed consisting of a few dissatis-

fied members of the St. Louis Medical Society, headed by the gentleman who resigned because he was unwilling to accede to the rules of the Association. As announced under his signature in the various daily papers, this new growth, to be called the Pathological Society, is to consist only of men who had already attained a high degree of culture before they began their medical studies. "In the matter of advertising, both in the daily and medical journals, the most liberal principles will govern 'this new society,' and," this modest annunciator continues, "it will league with the New York Academy of Medicine, the Pathological Society of Philadelphia, and other similar associations, for purposes of united action." *Nous voila!*

WASHINGTON.

(From our Special Correspondent.)

THE NATIONAL BOARD OF HEALTH, which met in Washington, D. C., on the 5th inst., decided to present its claims to Congress in a request for the reenactment of the Quarantine Bill of June 2, 1879, without the penalty clauses in said bill, it having been found to be impracticable to enforce the penalties.

No other business of importance was transacted. Dr. H. A. Johnson, of Chicago, a member of the Board, signified his intention to resign before the next meeting.

CANADA.

(From our Special Correspondent.)

ACTINOMYCOSIS IN CANADIAN CATTLE.—In the morbid anatomy demonstrations on November 24 and December 1, at McGill College, DR. OSLER showed five specimens of this disease, which he stated appeared to be very common in Canadian herds. During the past summer he had with Mr. Clement, V. S. Assistant Government Inspector of Stock, seen many cases among the animals inspected prior to shipping. As the Department of Agriculture had no orders regarding the disease, the animals were not condemned. The specimens shown were two jaws in an advanced, and one in an early stage of the disease, and two of throat and contiguous lymph glands. In only one of the animals had the growth produced much constitutional disturbance, as shown by the rough coat and emaciated condition. The characteristic fungus *actinomyces* was present in each instance. In cattle the affection is local, rarely attacking the internal organs, and does not seem to disturb the general health until the jaw tumor interferes seriously with mastication. It is inoculable, but probably not directly contagious. The origin and life history of the fungus still remain dark. Additional interest pertains to the disease from the fact that it occurs in man, in whom some twenty cases have been described; all in Germany. The human affection is more severe, metastasis is common, and it is possible that the *actinomyces hominis* may be a separate variety. It is a significant fact that Johnie inoculated without success two hogs and a calf with fresh material from man. A question of sanitary importance arises in connection with the flesh of animals so affected. Is it fit for consumption? Certainly not when the general health of the animal appears to have suffered in consequence; but when the disease is local and not advanced, the animal may be in excellent condition, as was the case with many of the large-jawed oxen sent from this port to England during the past summer. Cattle-dealers, however, seem to know that the disease damages the animal. Principal McLachran, of the Montreal Veterinary College, informs me that in the purchase of cattle in the western ranches, the stipulation "no big-jawed animals" is not infrequently made.

LEPROSY IN NEW BRUNSWICK.—During the past summer Dr. Graham, of Toronto, spent ten days at Tracadie, and made a thorough investigation into the history of leprosy in this settlement. His results have appeared in the October and November numbers of the *Canada Medical and Surgical Journal*. In the latter genealogical charts are given of the chief families affected.

THE MEDICAL SCHOOLS.—The business depression throughout the country has had the usual effect of forcing a larger number of young men into the professions. The attendance of students at the medical schools is considerably above the average. The total number last session at all the schools, was not quite seven hundred; this year it is estimated, from the returns available, that the number reaches eight hundred. McGill and Trinity have each over two hundred; and the Toronto School numbers over seventy new entries.

A new school has been opened at Winnipeg, Man. The papal delegate Monseigneur Smeuinders has been busy taking evidence in the Laval-Victoria case. He has, it is understood, full power to settle the differences between these rival schools.

THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—Notice has just been received of the appointment of the local Vice-Presidents and Secretaries of sections for the meeting which takes place in Montreal on the 27th of August next. Over five hundred members have signified their intention to come, and among them will be many of the leading scientific men in the profession.

LA SOCIÉTÉ D'HYGIÈNE DU PROVINCE DE QUEBEC.—An association with this title has been organized by the French Canadian Physicians. Dr. Tafari, of Montreal, is the President.

LONDON.

(From our Special Correspondent.)

MYXEDEMA.—On Friday evening, November 23d, the subject which occupied nearly the whole of the time of the meeting of the Clinical Society of London was "Myxedema." The discussion was excited by the narration and exhibition of a well marked case of the disease in a middle-aged woman (fifty years) by Dr. Drewitt. After a short pause, during which it was evident that the members awaited the introduction of the debate by Sir William Gull, the work began. This distinguished physician had nothing new to impart, and merely gave a brief sketch of the main features of the disease, as well as a short excursus into the possible pathology of the affection. The course of the malady was described as progressively, but slowly, onward to a fatal termination. In the way of treatment Sir William said that he knew of nothing which could stay its progress.

EXTIRPATION OF THE THYROID.—Dr. Felix Sémon read a brief communication comprising some account of certain results, which Prof. Kocher had noticed as ensuing on extirpation of the thyroid gland, and which fairly took the majority, if not the whole, of the audience by surprise—for no one present seemed to have heard of these remarkable statistics. It appears that Prof. Kocher, of Berne, has done something like one hundred extirpations (partial and complete) of the thyroid body. In a large number of the cases in which total extirpation had been practised a train of symptoms had come on insidiously, after considerable periods of time had elapsed since the operation. The patients, previously bright and active, tardily became dull and incapable of exertion; swellings of different

parts of the body, but notably of the eyelids, came and went before making a permanent appearance—in fact a concurrence of symptoms presented themselves, which tally very closely with the signs and phenomena observed in myxedema. Many of the principal clinical physicians present at the meeting took part in the debate, but there were only three features which could be singled out as representative of the evening's work. Sir Andrew Clarke, the President, and others had had cases under their care in which the clinical course of the disease was by no means progressively worse. Indeed, one or two of the patients expressed themselves as perfectly well, but the eye of the physician was still able to see the remnants of the malady in their faces and actions. So that in the progress of the disease a new or, at all events, not hitherto well-known observation was brought to light, *i. e.*, the fluctuating course of the affection, and possible termination in nearly natural health.

SIR ANDREW CLARK also said that the amount of urea discharged per diem was sometimes in excess and sometimes below the average daily discharge. On this point DR. BURNEY YEO remarked that he had observed similar fluctuations in the amount of urea daily discharged in altogether different kinds of disease.

DR. RADCLIFFE CROCKER went further, and said that even in apparent health there was nothing which could with certainty be called an average daily amount of urea excretion. This statement was made from the results of experiments on dogs subjected to precise conditions. The last incident on which stress was thrown was the apparently great improvement in the state of the patients which could be effected by the internal use of jaborandi and the subcutaneous injection of its alkaloid (pilocarpin). Half drachm doses of infusion of jaborandi or one-twelfth of a grain to one-quarter of a grain doses of the nitrate of pilocarpin, given by the mouth or hypodermically, respectively, were stated to produce profuse diaphoresis and remarkable improvement of the powers and faculties of the patient.

THE NEW JERSEY SANITARY ASSOCIATION held its Ninth Annual Meeting at the State House, Trenton, on Thursday and Friday, December 6th and 7th. The address of the President, J. C. Bayles, C.E., of Orange, N. J., showed the methods by which sanitary information can be popularized. He objected to much of the floating and misleading sanitary items of newspapers as being from sources not reliable, although often good in intent. Sanitary lectures and tracts, and local sanitary associations were earnestly urged. The address well enforced the radical necessity of accurate sanitary knowledge for physicians and in the interests of the public and of the State. A paper by Dr. T. W. Harvey, of Orange, sustained the paludal view of *Marsh Miasm*, and also gave some personal experiences as to the power of well water from marshy lands to convey the malarial poison. Apropos to malaria, Dr. H. P. Godfrey, of Camden, read an elaborate essay on germs, and the value of our present knowledge as to them.

A paper by Prof. A. R. Leeds, on *The Agencies, Natural and Artificial, Affecting the Purity of the Passaic River below Paterson*, gave rise to an animated discussion, which at length was transferred to the Delaware and Philadelphia. Dr. Leeds maintains the power of some rivers, with due space between the reception of fresh sewage and the place of securing potable water, to dispose of all sewage.

Domestic Wells and Cisterns, and Their Best Method of Construction, was well presented by Dr. I. N. Pinkham, of Montclair. The contention was that most open wells are unsafe and must go, and be substituted

by the driven well, or the common well closely cemented and arched about six feet below ground. Well constructed cisterns and the use of cistern water were also commended.

Appliances for Raising and Distributing Water were illustrated by Prof. C. L. Brackett, of Princeton, in a most interesting manner. He showed how electrical power, transferred from one dynamo machine to others, could overcome gravity, and how water be brought for use or removed for drainage from inland cities surrounded by hills, like Mexico. He also showed how sewage in the course of its distribution, as to a river, could, on the way, be greatly purified by small air-pipes all along the course, just touching the sewer stream, so as to secure the effect of the adhesion of air to the flowing liquid and consequent mixture and aeration.

Engineer J. J. R. Lewes discussed *Methods of Sewage Disposal without Discharge into Streams*. He agreed with J. Bailey Denton as to the power of soils to deal with sewage chiefly because of the access of air in the soil. He spoke of the various chemicals which will precipitate organic matter, and thought that a new plan of mixing this material with saw-dust and then using it for the fires under the boilers of the works promised success.

Prof. George H. Cook, of New Brunswick, discussed the various methods of *Filtration*. While recognizing most filters as removing only matter in suspension, he showed the importance of this. Beside, some filters, such as those of gravel, sand, and charcoal, give access to air and help oxidation. The value of alum as a precipitant was shown, and doubts expressed whether in moderate quantities there was any objection to its use.

School Hygiene was ably presented by Prof. H. B. Pierce, of New Brunswick; James Green, of Long Branch; and J. Madison Watson, of Elizabeth. Instead of generalizing, these papers proposed a model school-room, and model methods of applying physical exercises. A lively discussion was had over the present recess system, Prof. Pierce claiming that, with calisthenics, and with permission to children to go out as occasion might require, there was no need for the fifteen-minute recess. Others advocated a five-minute recess each hour or hour and a half.

The meeting brought together about fifty representative men from various parts of the State, besides a small local attendance. All felt well repaid by the excellent character of the papers and most of the discussions.

YELLOW FEVER IN MEXICO still exists in several towns, Manzanillo and Acapulco being the principal sufferers. Assistant Surgeon Main, U.S.M.H.S., stationed at Brownsville, Texas, states that the Mexicans are more alarmed at the appearance of scarlet fever, which is now prevailing as an epidemic in Puebla, than of yellow fever, as its mortality or sequelæ have proved more disastrous. He reports that quarantine restrictions were raised at Brownsville and Matamoras on the 15th of November, having been merely a quarantine of observation of late. He also states that a large lagoon which nearly surrounded the city of Matamoras has recently been drained, temporarily adding much to the unhealthfulness of the inhabitants, though of great importance for the future sanitary condition of the city.

THE SANITARY CONVENTION AT LONDON, ONTARIO. —The Province of Ontario, Canada, has just had a Sanitary Convention, at London, which was well attended. Typhoid fever has prevailed to an unusual extent in the province. Malaria has excited much attention the last two or three years. A paper on the

typhoid plant quite took it for granted that its botany was complete. Prof. Arnott, of London, seemed quite in favor of a mill-dam war. Sixteen papers on various subjects occupied two days, and gave rise to much discussion.

THE PROVINCIAL ASYLUM OF ONTARIO, near London, has eight hundred and ninety-nine inmates. In addition to a very large building, it has three cottages, and so combines the two systems. For the last two years the non-restraint method has been practised, with most excellent results. The resident physicians, once opposed to it, are now warm in its advocacy.

INTERNATIONAL HEALTH EXHIBITION IN 1884.—At the close of the International Fisheries Exhibition, His Royal Highness the Prince of Wales announced his intention of arranging to hold in the same buildings an International Exhibition of Food, Dress, Habitations, and Educational Appliances. This exhibition will be held on a great scale, and will, it is understood, be organized so as to embrace and bring into prominence illustrations of all that most affect the welfare of the people, not forgetting the poorer classes.

THE NEW ENGLAND MEDICAL REGISTER.—A new edition of the Register, revised by Dr. Francis Brown, will be published shortly.

DR. WILLIAM B. PLATT on Saturday, November 24, obtained by examination the degree of Fellow of the Royal College of Surgeons of England. He is said to be the first native-born citizen of the United States who has obtained this degree. There were seventeen candidates, and nine succeeded in passing the examination.

BUSTS OF VON LANGENBECK, GRAFE, and DIEFFENBACH, have been recently placed in the surgical amphitheatre of the University of Berlin.

PROFESSOR JOHANN SCHNITZLER.—The Emperor of Germany has recently appointed Dr. Schnitzler as Professor Extraordinary in the University of Vienna.

DR. MARKBREITER'S JUBILEE.—On November 4, Dr. Philip Markbreiter celebrated his fiftieth doctorate jubilee. He was the founder of the *Wiener Medicinal-Halle*, which subsequently became the *Wiener Medizinische Presse*, now current. He was presented with congratulatory addresses by his Vienna colleagues.

SCHULTZE'S JUBILEE.—On November 1st the Twenty-fifth Jubilee of Prof. B. SCHULTZE, as Professor and Director of the Gynecological Clinic, was celebrated in Jena. His colleagues and pupils presented him with a memorial album, and in the evening a reception was given to him.

BIOGRAPHICAL LEXICON OF PHYSICIANS OF ALL TIMES AND PEOPLES.—The first two fasciculi of this work, edited by Prof. A. HIRSCH, with the assistance of an able corps of coeditors, have just appeared in Germany.

REAL-ENCYKLOPÄDIE DER GESAMMTEN HEILKUNDE.—This valuable work, under the editorship of Professor Eulenburg, has just been completed.

THE CITY OF VIENNA, Austria, is not a very healthy place for consumptives, judging from the weekly reports: For week ending October 27th, there were eighty-two deaths from consumption and thirty-six deaths from acute lung diseases in that city, and the week previous a still greater mortality.

CONCERTED ACTION BY STATE BOARDS OF HEALTH.—There has been a growing conviction among leading sanitarians intrusted with the official execution of practical health measures, that while the work of the American Public Health Association is of inestimable value in promoting the interests of sanitary science and sanitary reform, there is a constantly increasing need for an annual conference of State and other health officials in regard to practical affairs of their everyday work, some part of which work cannot profitably be discussed in a public meeting consisting largely of persons not familiar with its details.

After due consideration, a meeting of representatives of State boards was held at Detroit, during the recent meeting of the American Public Health Association, at which, after discussion, it was decided to call a meeting of the secretaries or other representatives of all State Boards of Health, in Washington, during May, 1884, for the purposes mentioned, and with the view of organizing a section devoted to State Board work in the present Association, or the formation of a permanent separate organization especially adapted to the needs of State Boards of Health. Drs. Henry B. Baker, of Michigan, and J. N. McCormack, of Kentucky, were appointed a committee to confer with and secure the coöperation of all the State Boards in fulfilling the object of the meeting, and Drs. C. W. Chamberlain, of Connecticut, J. E. Reeves, of West Virginia, and Stephen Smith, of New York, were appointed a Committee on Organization, to report at the meeting in May. The American Medical Association meets in Washington in May; and another reason for holding the meeting in Washington is that the representatives of the State Boards may also have an opportunity for conferring with the Senators and Representatives in Congress from their respective States, in regard to national sanitary legislation. It would seem that whenever the health authorities of all the States shall meet, discuss, and agree upon the course they will pursue with respect to yellow fever, cholera, smallpox, or any disease which endangers public health, without regard to State lines or borders, and whenever all State Boards shall act in concert, considerable progress will have been made in solving the problem of what are the best methods for national action in regard to inter-State and maritime quarantine or inspection and disinfection, as well as in the practical control of epidemic diseases within the several States of this country.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending December 1, 1883, indicate that bronchitis, remittent fever, inflammation of kidney, and puerperal fever have increased, and that typhoid fever, intermittent fever, and dysentery have decreased in area of prevalence.

Compared with the average for the month of November in the preceding six years, remittent fever, consumption, typho-malarial fever, intermittent fever, diphtheria, bronchitis, and typhoid fever were less prevalent in November, 1883.

Including reports by regular observers and others, diphtheria was reported present during the week ending December 1, and since, at seventeen places; scarlet fever at eighteen places; and measles at eight places.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.